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ORIGINAL ARTICLES.

CONCEALED PREGNANCY—ITS RELATIONS TO ABDOMINAL SURGERY.

Read in the Section of Obstetrics and Diseases of Women, at the Fortieth Annual Meeting of the American Medical Association, June, 1889.

BY ALBERT VANDERVEER, M.D.,

PROFESSOR OF DIDACTIC, ABDOMINAL AND CLINICAL SURGERY IN THE ALBANY MEDICAL COLLEGE.

A half century ago a distinguished German surgeon was called in consultation by a very competent obstetrician to a case in which the patient had apparently been in labor for three weeks. A Cæsarean section was decided upon, and the abdomen opened, when, to the discomfiture of all, nothing but intestines distended with gas were found. That the Professor was chagrined and in a vindictive frame of mind, was demonstrated by the after-treatment, for he kept the abdomen packed in ice, applied two hundred leeches to the abdominal walls, and in addition subjected the woman to three bleedings. The patient recovered, and doubtless ever after desisted from trifling with the resources of surgery. This case has never been reported as a successful Cæsarean section. From then until now errors relative to the diagnosis of pregnancy, as a complication of abdominal section, have occurred, and doubtless will continue to occur; no one has been free from the liability to this error. The most eminent and painstaking surgeon of extensive observation, as well as the operator of few opportunities, have alike the same experience.

When mine came I must confess to you that I felt not a little humiliated. I asked myself after a careful review of my notes, and those of my assistant, "Have I exercised all the care that is possible in the examination of my case, and has my diagnosis been based upon good judgment?" Text-books on obstetrics and gynecology furnished but little aid or comfort. The few cases reported were widely scattered, and many found in the tables accompanying this paper were secured only after diligent, personal inquiry. Many of the mooted questions of abdominal surgery have already been settled, and we are little benefited by papers devoted to the treatment of the pedicle, drainage, or the detailed histories of cases. I have thought that I might be able to contribute something for the benefit of the profession, by giving the results of my investigation of this subject. I shall relate to you the histories of two personal cases of exploratory incision in which pregnancy as a complication of fibroid tumor occurred, and which was not diagnosticated prior to the operation, either by myself or my colleagues, after repeated careful examinations. I purpose treating the subject with perfect frankness. I have collected all reported cases, wherein the same conditions existed, and personal inquiry has secured the histories of many others which are now presented for the first time. That the table is incomplete I know, for some of the operators have either perverted the histories of their cases, or have suppressed them altogether. This latter statement is capable of abundant proof. We shall later, when we come to the consideration of the table of cases, collect such facts as seem warranted from the clinical histories, and endeavor to draw from them such conclusions as are justifiable.

Case 1.—Abdominal Section, Exploratory. Operator A. VanderVeer, M.D. Operation October 7, 1887.

Mrs. E. C. W., æt. 34, native of United States, married and by occupation a housewife. Family history decidedly tubercular. Patient gave history of past ill-health, but aside from an expression indicative of much pain and suffering, she seemed physically strong. First menstruation at 13, scanty and painful; menstruation always irregular; has suffered for extended periods from amenorrhœa. No children, no miscarriages. Was treated during 1883 for ulceration of the cervix with leucorrhœa. June 5, 1887, was the date of the return or her menstruation, but no flow appeared, and on June 25, 1887, she noticed a tumor in the left iliac region which grew rapidly and became very painful. Patient had a slight show July 4, also noticed a slight tingling and swelling in the breasts; no nausea or vomiting. September 30 I gave her a careful examination at my

NOTE.—For much that pertains to the preparation of this paper, collection of cases, etc., I am indebted to Dr. Willis Goss Macdonald, Assistant in Abdominal Surgery, Albany Medical College; and I wish also to extend my thanks to those gentlemen who were so kind as to send me the history of their own cases hitherto unpublished, and other references.

office and made the following notes: Breasts slightly enlarged and tender, areola not markedly pigmented; abdomen, to the height of the umbilicus, irregularly distended. Palpation revealed a hard tumor on the left side, and a softer one (semi-fluctuant), on the right side. No absolute signs of pregnancy after repeated examinations. Per vaginam, a natural cervix could be felt high up and a mass at the left of the uterus was distinctly made out. I was in much doubt as to her condition, taking into full consideration the probability of a normal or extra-uterine gestation, also of fibroid or fibro cystic tumor of the uterus. I advised that she enter the Albany Hospital for further observation, which she did a few days later. Upon examination and consultation with Drs. Boyd and Townsend, having agreed upon the physical signs already detailed, and having introduced the sound into the uterus three inches without result, in view of the distress and great pain of the patient an exploration was deemed advisable. A full explanation was made to the family, an operation advised and consented to by them, having in view the great probability of an ectopic gestation. Abdominal incision revealed two fibroids upon the left of the uterus, subperitoneal in character, and the remainder of the uterine tissue, especially upon the right side, seemed involved by multiple myxomata of a softer consistence. Adhesions were very general, precluding its removal. No further operation being advisable, abdomen was closed. Patient went on well until fifth day, when localized peritonitis developed and rapidly became general. On evening of sixth day abdominal wound opened in consequence of great distension of the bowels, due in part to peritonitis and obstructive pressure of fibroids. A large dressing was saturated with serous effusion. Wound was brought together by strapping. Next morning drainage was introduced, peritonitis subsided in a day or two, and the case went on to recovery. Discharged from hospital November 8, 1887, abdominal wound completely healed. November 13 I visited her at a friend's home and found her presenting a very good condition of health, and able to move about the house. Advised the use of electricity, and requested her to let me know later on how she progressed.

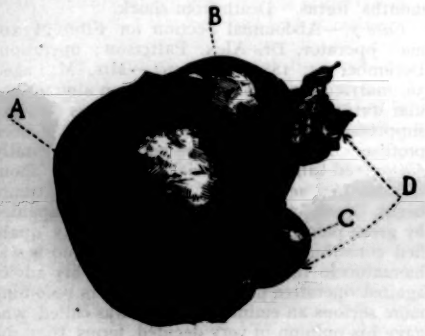
December 24, Dr. H. F. C. Miller, of Rensselaerville, N. Y., who had originally referred the patient to me, visited me and stated that he had been called to attend Mrs. W. a few days previous. Arriving at her house he found her partially delivered of a six months' fœtus. The doctor delivered the placenta, noticing quite an enlargement of the abdomen remaining. Patient recovered from her abortion slowly, and since I have had no opportunity for an examination.

Case 2.—Abdominal Section, Exploratory. Operator A. VanderVeer, M.D. Operation May 11, 1888.

Mrs. M. M. S., æt. 35, native of United States, and by occupation a housewife. Family history excellent, and before puberty enjoyed good health. First menstruation at 14, always regular, but suffered from dysmenorrhœa and menorrhagia. The menstrual blood was always clotted. Married seven years, no children, no abortions. Three years previous had an attack of general peritonitis, from which she made a good recovery. Four years ago began to have a dull, dragging pain in the right iliac region, and extending down the thigh. A very competent gynecologist was consulted, who regarded the trouble due to the pressure of a displaced uterus.

For the last eight weeks she had menstruated but one day, at the time for her menstruation. About the middle of March, 1888, patient noticed a small hard tumor in left iliac region which gave rise to little discomfort. The tumor grew very rapidly after discovery and was very painful, requiring the free use of anodynes to keep the patient comfortable. The breasts were tender, but the areola not markedly pigmented. The tenderness of breasts always occurred with menstruation. I saw her at her house in consultation with Dr. J. R. Davidson, her family physician, May 6, 1888. Upon palpation I found a growth in the left iliac, hypogastric, and extending upward in the umbilical regions and rather beyond the median line. It was very tender, nodular and boggy to the touch. Upon percussion was perfectly flat and did not fluctuate. Auscultation revealed no sign. Per vaginam the cervix could be made out far back towards the sacrum, but the body of the uterus could not be outlined. In the cul-de-sac of Douglas a body the size of an egg could be defined. Bimanually cervix and growth moved as a single body. The uterine sound passed 3½ inches. Ballottement failed to elicit anything. The vagina was not distinctly tinged. The patient was examined by Drs. Boyd, Townsend and myself a few days later. Although in consultation the intra-abdominal condition could not be agreed upon, from the urgency of the symptoms an exploration was deemed advisable, believing the growth to be a multiple, uterine fibroma, with a view to hysterectomy or the removal of the uterine appendages. The abdomen was opened by the usual median incision, and upon examination of the growth it seemed sarcomatous in its nature, springing from the broad ligament and the body of the uterus. From the extent of the pelvic adhesions, the great vascularity of the growth and the bad prognosis of sarcoma, its removal was not undertaken. The fourth day after the operation localized peritonitis occurred, but yielded kindly to salines and ice coil locally. In the morning of the tenth day a slight show was noticed, and at noon the patient aborted, the fœtus being about four months. There was no flooding. Her condition rapidly became more

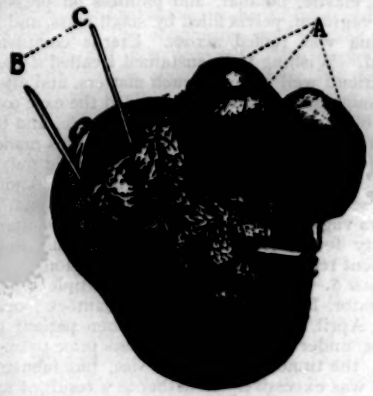
serious, and she died from exhaustion May 24, 1888. Autopsy three hours after death. Uterus implicated by large fibromyxoma, partially subserous in character, was studded with hard, nodular excrescenses, thirteen in number, and which



No 1

Left anterior view. A, B, and C, fibroid in order of size. D, broad ligament.

completely surrounded the uterus. The great mass of the uterine tumor lay to the left of the uterus. There were extensive adhesions of tumor to the intestines and bladder. Cavity of uterus 4 inches in depth, and contained small portions of

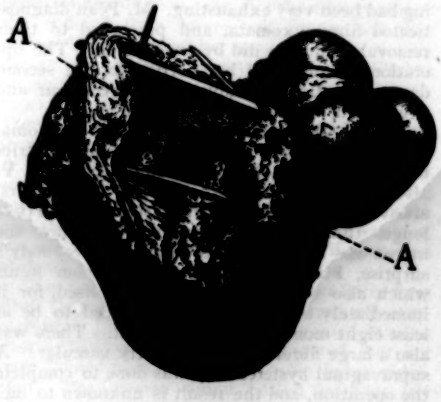


No 2.

Posterior view. A, smaller masses left in cul-de-sac of Douglas. B, right Fallopian tube. C, right ovary.

the placenta. There was no fluid in abdominal cavity, and but slight evidence of recent peritonitis. No further examination was made. For a clearer idea of the tumor I invite your attention to the photographs here presented.

In addition to my personal cases I shall take the liberty of presenting to you abstracts of the histories of cases which illustrate the conditions that are properly open for discussion.



No 3.

Same as No. 2, with cavity of uterus laid open, and showing a fibroid in posterior wall.

Case 3.[1]—Abdominal Section, Exploratory. Operator Dr. Cornelius Kollock. Operation May 21, 1889. *Abstract.*—A. C. F., æt. 28, colored, married and has one child, now 10 years old. General health apparently good. Four years ago she first noticed a fulness of the abdomen, more to the right than the left side. When I first saw her, (May 10) she was very much distended. The prominence was central and very high up. Tumor movable, hard and nodular. Fluctuation could not be elicited. Menstruation normal in every particular. She positively affirmed that she never missed a period save when pregnant the first time. There was no vaginal tilting, the os uteri was closed, and the cervix as hard as cartilage. The sound was introduced nearly 4 inches into the uterus, and she did not present a single symptom of pregnancy. The tumor had become so large that it produced severe dragging, dyspnœa and discomfort. An exploratory incision disclosed a very large subperitoneal fibroid springing from the fundus by a broad pedicle. The uterus was occupied by twenty-two other fibroids varying in size from an orange to a cherry. A supravaginal hysterectomy was done, and the uterine cavity found to contain a macerated fœtus of two and one-half or three months. The patient was doing well June 1. A recovery.

Case 4.—Abdominal Section for Multiple Fibromyxoma. Operator M. Péan. Operation Decem-

[1] The abstract of this case is made up from notes kindly furnished by Dr. Kollock, who has frankly stated the facts in this and another case, and generously offered them for publication.

ber 15, 1874. *Abstract.*—Madame B., æt. 37, a widow for several years, always sterile. For several years had suffered from severe menorrhagia. Recently tumor had grown very rapidly and flooding had been very exhausting. M. Péan diagnosticated fibromyxomata, and proceeded to their removal, which he did by enucleation. The operation was followed by abortion on the second day. Gestation had advanced between four and five months. Patient recovered.

Case 5.—Abdominal Section for Fibromyxoma. Operator Professor Freund, Strassburg, contributed by Dr. J. W. Poucher, Poughkeepsie, N. Y. *Abstract.*—Patient æt. 50, married many years, always sterile. Fibroid had existed for some time longer than discovered pregnancy. When the uterus was opened, to his own and everybody's surprise, Freund brought out a buxom fœtus which also seemed very much surprised, for it immediately began to cry. It proved to be at least eight months old and all right. There was also a large fibroid which was very vascular. A supravaginal hysterectomy was done to complete the operation, and the result is unknown to me. This case is now reported for the first time.

Case 6.—Abdominal Section, Exploratory; operator, Robert Barnes, M.D.; operation January 7, 1877. *Abstract.*—Mrs. C. had been married for several years; no children or abortions. Always menstruated punctually until three months ago, without excess, since which time menstruation has been suspended and pelvic pain has arisen, with dysuria, retention and intra-pelvic pain, accompanied by vomiting. A fortnight ago swelling in the hypogastrium from pelvis upward became marked, and the abdomen was found partly filled by a tumor taken to be a fibroid. January 24, 1877, Dr. Barnes saw the case and found an enlargement of abdomen extending to a little above umbilicus on the right side and not quite so high on the left. It was tender and lumpy, and the os uteri was felt high above the upper edge of the symphysis pubis, small and compressed transversely. Sound passed two and one-half inches. Behind tract of sound, and apparently behind tract of uterus, another dense tumor could be felt. By rectum the mass could be felt rounded, filling sacral hollow. Two days later Drs. Baber, Braxton-Hicks and Barnes met in consultation and discussed the probabilities of the case. Under ether an attempt was made to dislodge the tumor from the pelvis, which was only partially successful. They thought the probability preponderated in favor of an ovarian tumor partially solid. It seemed impossible that fibroids could be developed so rapidly. The condition of pain, retention, vomiting and commencement of strangulation of impacted mass made it imperative to give quick relief. Gastrotomy was decided upon with this end in view. Abdominal section revealed general peritonitis. On summit and side of tumor were numerous nodular projections. Trocar plunged in and a little blood and foul air was obtained. Tumor and uterus were removed by supra-vaginal amputation. Uterine cavity contained three months' fœtus. Death from shock.

Case 7.—Abdominal Section for Fibro-Myxoma; operator, Dr. Alex. Patterson; operation, December 11, 1884. *Abstract.*—Mrs. M., aged 36, married nine years, menstruation always regular until last few months; now it was entirely suppressed. For years menstruation has been profuse. August, 1884, the patient accidentally discovered tumor in left side of abdomen about the size of a small plum. In September tumor began to increase rapidly and to be accompanied by great pain. September 22d a specially qualified consultant was called, and his diagnosis was hæmatocele in Douglas' pouch and his advice against operative procedures. Matters becoming more serious an eminent surgeon was called, who gave his opinion in very decided terms that the tumor was uterine fibroid and should be left alone, as an operative procedure would only hasten a fatal result. I was called December 21st and thought the case to be one of fibroid that could be removed and the patient recover. In the left iliac fossa, close to the pelvic brim, the tumor was most readily encountered. It was traceable across the lower abdomen, getting lower to the brim on the right side. The growth was firm, elastic, nodular, and painless on pressure. Per vaginam, pelvis filled by small mass, and the vagina was roofed across. Uterus completely fixed. Wishing to be sustained I called a medical friend well versed in such matters, and after a prolonged examination he decided the case to be one of ovarian disease, probably double, and that it should be removed. An endeavor was made to introduce the uterine sound, but it could only be made to pass one and one-half inches. Abdominal section revealed multiple fibro-myxoma. A supra-vaginal hysterectomy was done and uterine cavity found to contain a four months' fœtus. Patient recovered without a bad symptom.

Case 8.—Abdominal Section, Multiple Fibroid; operator, Dr. George Granville Bantock; operation April, 1884. *Abstract.*—When patient first came under his notice, two years prior to operation, the tumor was of small size, but menstruation was excessive. Whether as a result of medical treatment or otherwise, it was a singular fact that the menorrhagia diminished until the flow became quite moderate and even scanty, while the tumor kept on growing. For over three months before operation menstruation had been absent. As the patient was single his suspicions were not aroused, and it was impossible to examine the uterine body, for the cervix was so drawn up that the os could only be touched with the tip of the finger, while the uterus was covered in

front by one of the tumors. After separating omental adhesions to the larger of the two tumors, which had undergone cystiform degeneration, and turning out the whole mass, it was easy to secure a very good pedicle at the level of the internal os. He confessed he was rather glad he had not diagnosed the pregnancy, for had he done so he probably would not have performed the operation. Uterus contained three months' fœtus. He was happy to say that when last seen the patient was in excellent health and even contemplating marriage.

Case 9.—Abdominal Section, Supra-Vaginal Amputation of Pregnant Uterus, Complicating a Multilocular Fibroid Tumor; operator, Dr. James H. Etheridge. *Abstract.*—Mrs. A. B., aged 34, no children, first experienced uterine symptoms four years ago. Two years later suffered from retroversion and impaction of the uterus, at which time a sub-peritoneal myoma was diagnosticated. In May, 1886, four years since first symptoms, patient suffered from distressing nausea. Mammary changes supervened. In the ensuing three months the tumor grew rapidly, and Dr. Knox diagnosticated pregnancy. At the expiration of three months he decided to produce abortion. August 1, 1886, sound was introduced into uterus four inches. Its withdrawal was followed by a small amount of blood, the nausea and vomiting ceased, and the mammary symptoms disappeared. Nothing further followed indicating the previous existence of pregnancy or abortion, and the conclusion was reached that conception had not occurred. The rapid encroachment on the abdominal organs, her diminishing strength, emaciation and suffering were progressively killing her. From external examination it was found that the tumor extended from the right iliac fossa across the abdominal cavity in a straight line to the spleen. Its length was apparently double or treble its width. It was freely movable, free from adhesions, and solid. It presented great tenderness in right iliac fossa. Per vaginam, the cervix uteri was found very high up in the left iliac fossa, and the fundus uteri was apparently thrust into the right iliac region. The whole tumor moved with the uterus. A very slight resiliency, offered to conjoined manipulation, led me to think that I had to do with a fibro-cystic tumor of the uterus. The sound entered the uterus four inches and seemed to pass toward the umbilicus; tumor was removed by supra-vaginal hysterectomy. Patient died from septicæmia. Examination of the tumor showed it to be fibro-myxomatous, and that the uterine cavity contained a three months' fœtus lying in its unruptured membranes. Fœtus was evidently alive at time of operation. The cervical canal was five and one-half inches long. Weight of tumor, 10 pounds.

Case 10.—Fibro-Myxoma of Uterus Complicated by Pregnancy. Reported by J. Lucas Worship, Esq. *Abstract.*—Mrs. C. C., aged 35, married two and one-half years, family history good, previous health good. Six months after marriage she suffered from severe pain in the left iliac region, but continued her service. Later she began to enlarge and was examined repeatedly, but no signs of pregnancy ever elicited save amenorrhœa. Never suffered from menstrual disorders. Tumor grew very rapidly and was irregular. Cervix was very high, firm and near the sacrum. A diagnosis of malignant tumor of the uterus was made and palliative treatment instituted, but the patient died in two months. Post-mortem examination revealed multiple fibro-myxoma of the uterus and pregnancy. Period of gestation at death, six months.

Case 11.—An abstract of a personal letter from Prof. Czerny, of Strassburg. The case was operated upon January 7, 1881, for supposed ovarian cyst: The cervix uteri was elongated, but not well defined from the fundus. No fœtal pulsation. The uterine sound passed, without any obstruction whatever, 21 centimetres, and, as I thought at the time, through the tube into the abdominal cavity. On making the incision through the abdominal walls I at once recognized a gravid uterus and immediately closed the wound. I had evidently cut down to a gravid uterus, which was in an anti-flexed position and contained a large quantity of liquor amnii. I must add that the patient, aged 31 years, who in her capacity as midwife had delivered seventy-five women, strenuously denied that she was pregnant, and as firmly asserted that she had had the menstrual flow within a few days. There was some deposit of pigment about the nipples and areola. Without any bad results following the laparotomy she was safely delivered April 28, 1881. Some time after the cicatrix became indurated. This was remedied by making elliptical incisions and applying sutures, with good result.

INDICATIONS FOR OPERATION.

A study of the clinical histories, especially in the cases of fibro-myxoma, shows that there was an immediate demand for operative procedure. Robert Barnes so tersely states the indications for abdominal section in his case (see case 6) that the repetition is useful: "The condition of pain, retention, vomiting and commencing strangulation of impacted mass made it imperative to give quick relief." To these symptoms exploratory laparotomy reveals that other often fatal condition, peritonitis. Alex. Patterson's case was equally unpromising but happier in its results. Pain has been a prominent symptom in nearly all of the cases, often requiring the continuous use of anodynes. Palpation gave so much distress that, if done at all, it was imperfect and unsatisfactory. The rapid growth of the tumor has led

to dyspnœa, dysuria and constipation, or to more active obstruction of the bowels, œdema of the extremities, vomiting, emaciation and peritonitis. Universal experience has shown that temporizing with cases wherein there are symptoms such as have been related has been uniformly disastrous. The case of J. Lucas Worship, Esq., has been introduced in this article for the purpose of illustrating this point. Teachers have been often too prone to advise the waiting for extended observation. It seems to me that Mr. Lawson Tait has carefully and clearly enunciated that which is the best practice in one of his numerous controversial papers (*Am. Jour. Obstetrics*, vol. xxi, p. 295), in which he says: "Conditions within the abdomen are such that the life of the patient is evidently threatened, or the conditions combine in such a direction as to defy ordinary treatment and make life unendurable. Do not let any doubt as to accuracy of diagnosis stand in the way of an exploratory incision, for this will at once make a complete diagnosis possible and open a road for successful treatment."

DIAGNOSIS.

The influence of gestation upon fibro-myxoma demands our consideration. The consistency of the abdominal tumor has been variously described as firm, doughy, soft, fluctuant, and, indeed, the sense of fluctuation has led the surgeon more than once to puncture the tumor with the needle of the aspirator, or trocar. There can be no reasonable doubt that the different degrees of density are dependent upon three conditions, viz: the structure of the tumor, its situation, and certain degenerative changes. The growths made up largely of muscular elements are more readily affected by the increased intra-pelvic circulation of pregnancy, become more œdematous and grow more rapidly, than those in which fibrous elements preponderate. Intra-mural fibro-myxomata, from their more intimate connection with the uterine walls, exhibit more active metamorphoses than do sub peritoneal ones with slender pedicles. Pregnancy may also bring about necrotic degeneration and softening from pressure. If the foregoing facts are sufficiently established, then sudden enlargement and softening of pre-existing fibro-myxoma is a valuable sign of pregnancy. But this rapid increase in volume has not been uniformly observed (*Gusserow Cycl., O. G.*, vol. ix, p. 300). Again, as this rapid growth is more frequently dependent upon increased vascularity, causes other than pregnancy may operate similarly. Tumors largely myxomatous often markedly enlarge during menstruation and grow with great rapidity. On the other hand, fibro-myxoma, in which sarcomatous degeneration takes place, or primary sarcoma of the giant, or small round cells type, are very rapid in their development and are attended with great pain. In the case of Worship (l. c.) the diagnosis of malignant disease of the uterus was made. *A priori*, sudden increase and softening in a fibro-myxoma, to be of value as a presumptive sign of pregnancy, is dependent upon the exclusion of primary sarcoma, or sarcomatous degeneration, and the soft and rapid growing variety of fibro-myxoma.

For these reasons, in those cases where the diagnosis of pregnancy has been made upon the observance of rapid increase in size and softening in the fibro-myxoma, it is to my mind, although quite enough to arouse suspicion, based upon insufficient evidence. However, in connection with amenorrhœa and mammary changes it is of great value, and yet has not been referred to with uniformity by writers. Ectopic gestation may occur in these cases, giving rise to the same changes in the tumor (see cases of Smutz and Bayle). Amenorrhœa is a valuable symptom when it occurs. It will be noted that it occurred in eleven of the twenty-six cases, the study of which form the basis of the greater portion of this paper; yet there are circumstances which may materially modify its value as a symptom. For example, in my first case the patient gave a history of having suffered for extended periods from amenorrhœa. Again, in the case reported by Bantock the menstrual flow had been growing more scanty for a long period and finally ceased. The menstruation may continue, or an irregular flow may exist during pregnancy (Mundé, Bayle, Gusserow, and others). Abortion in cases of fibro-myxoma is most frequently induced by flooding. The sympathetic mammary disturbances which are observed in pregnancy were noted in four of the cases, but they are of themselves of no great value. In my second case they were present, but not more prominent than at any menstrual period. "The gastric, mammary and nervous symptoms of pregnancy sometimes result from ovarian disease." (Thomas.) Abdominal palpation, especially in the earlier months, can add but little in the elucidation of the problem and often has misled surgeons of great ability Auscultation may reveal a bruit, but who will say that it is the bruit of fibroid or of pregnancy? Later both palpation and auscultation are invaluable, revealing ballottement, quickening, and the fœtal heart sounds. The sign of pregnancy, to which, in later years, Braxton-Hicks has called particular attention, the alternating contraction and relaxation of the pregnant uterus, may be entirely obscured by the fibro-myxoma. English operators have laid great stress upon this sign.

Per vaginam, the vaginal venous injection observed in pregnancy does not differ materially from that occurring with the large fibro-myxoma, in which a concealed pregnancy may occur. In none of the cases here reported were there such changes in the cervix uteri as are regarded char-

ABDOMINAL SECTION COMPLICATED BY PREGNANCY NOT DIAGNOSTICATED BEFORE OPERATION.

Case.	Operator and Reference.	Age.	Civil Cond'n	Parity.	Condition Diagnosticated Before Operation.	Condition Found at Operation.	Per. of Gest'n.	Result.	Symptoms, if any, of Pregnancy Prior to Operation.	Remarks.
1	M. Péan, Chir. Chirurg. Pavé, '76, Vol. i, p. 677.	37	W	o	Fibromyxoma of uterus.	Fibromyx. of uterus and pregnancy.	4 m.	R.	None stated.	Rapid growing tumor, very large, patient a widow 9 years; aborted 2d day; enucleation.
2	Prof. Freund, pers'l com. Dr. J. W. Poucher, Poughkeepsie, N. Y., who saw the operation.	50	M	o	do do	do do	8	R.	None	Porro's operation.
3	Geo. Granville Bantock, Brit. Gyn. Jour., Vol. ii, p. 65, also personal com.	34	S	o	do do	do do	3	R.	Amenorrhœa for 3 months.	do do
4	J. H. Etheridge, Am. Jour. Obst., Vol. xx, p. 69.	34	M	o	do do	do do	3	D.	do also mammary changes.	do do
5	Meredith, Am. Jour. Obst., Vol. xiv., p. 923.	.	.	.	do do	do do	2	D.	Amenorrhœa for 2 months.	do do
6	Hofmeier, Die Myo Tomie, p. 76, etc.	41	M	o	do do	do do	3	R.	Preg'cy not absolutely excluded; amenorrhœa.	do do
7	Dirner, Centrbl. f. Gynak., 1887, Bd. ii, p. 119.	49	M	o	do do	do do	2	R.	Amenorrhœa	do do Fœtus dead and macerated.
8	Karström, Hygeia for April, 1885.	36	M	1	Exploratory.	do do	5	. .	None	Porro's operation.
9	Kaltenbach, Centralb. für Gynekol., 1887, Bd. ii, p. 435.	33	M	1	Fibromyx. of uterus.	do do	2	R.	do	do do Disintegration of tumor begun fœtus macerated.
10	Alex. Patterson, Glasgow Med. Jour., April, 1885.	36	M	o	do do	do do	4	R.	do	Porro's operation.
11	R. Barnes, St. Geo. Hospt. Rept., 1874-76, Vol. viii, 91-95.	.	M	o	Exploratory.	do do	3	D.	Amenorrhœa	do do
12	Wesseige, Bull de l'Acad. Royal de Belgique, 11 Ser. 3, No. 4.	35	M	1 ♂ o	Fibromyx. of uterus.	do do	. .	D.	do	do do Called attention to absence of signs of pregnancy.
13	A. C. Bernays, Reprint Clin. Rept. Surg. Cases.	35	S		do do possibility of pregnancy.	do do	Viable.	D.	No symptoms stated in report.	Porro's operation.
14	J. Lucas Worship, Esq., Lond. Obst. Trans., Vol. xiv, p. 305.	35	M	o	Malignant tumor of uterus.	do do	4	D.	None	Patient died in 2 months without operation.
15	J. Henry, Gyn. Jour., 1871, Vol. ix, p. 331.	.	.	o	Fibromyx. of uterus.	do do	4	D.	do	Patient died in 2 hrs. after operation.
16	Prof. Weith, pers'l com.	.	.	.	Cystoma ov. cyst.	do do	2	D.	do	Died from intraperitoneal hæmorrhage.
17	Bayle, Annals de Soc. de Méd., St. Etienne.	.	.	.	do do	do do	. .	D.	do	Patient flooded very severely.
18	H. Tuholski, St. Louis Polyclinic.	36	M	o	do do	do do	3	R.	Amenorrhœa 3 mos. before.	Fœtus dead and macerated; patient suffering from septicæmia.
19	W. Walter, Brit. Medical Jour., Vol. ii, 1883, 718.	29	M	o	Fibromyxoma (s) exploratory.	Fibromyxoma and pregnancy.	4	D.	Amenorrhœa, slight mamm'y changes.	. . . . .
20	VanderVeer, Trans. N. Y. State Med. Soc., 1888.	34	M	o	Exploratory, probable fibroid, extrauterine pregn'ncy.	do do	4	R.	do do	Explor. inc. closed; aborted 2 mos. later; recover'd.
21	VanderVeer, not reported.	35	M	o	Fibromyx. of uterus, prob'ly explorat'y.	do do	4	D.	None	Aborted 10th day after operation, and died.
22	C. Smutz, Brit. Gyn. Jour., Vol. iii, p. 691.	42	M	o	Fibromyx. of uterus.	Fibromyxoma and extrauterine preg.	. .	D.	Amenorrhœa, slight mamm'y changes.	Porro's operation; death from shock.
23	Thos. Keith, rep'd in dis. by Skene, Keith, Obst. Tr., Edindurgh, '84-85.	.	.	o	do do	do do	. .	D.	None	By after-history learned that fœtus has been dead nearly 4 years.
24	Stoltz, County Diseases of Women.	.	.	o	do do	do do	. .	D.	Not stated.	. . . . .
25	C. Kollock, personal com.	28	M	1	Exploratory.	Fibromyxoma and pregnancy.	3	R.	None, absolutely . .	Found macerated fœtus of 2½ or 3 mos; menstruation normal in period and quantity.

PREGNANCY IN BICORNATED UTERI, ETC.

1	A. McDonald, Obst. Tanr. Edinburgh, '84-85, p. 76.	23	M	o	Fibromyxoma of uterus.	Pregnancy in bicornated uterus.	. .	R.	Very ignorant pat.; indefinite history.	Hysterectomy; ut. cont'd macerated fœtus, 5 lbs.
2	Schfossowski, Rev. Gen. de Clin., No. 13, 1889.	.	M	1	Exploratory.	Pregnancy in right corner of uterus.	7	R.	No def. sympt's; pat. flooded severely.	Fœtus dead and macerated.
3	P. T. Mundé, N. Y. Obst. Soc., May 7, 1889, personal com.	.	.	.	4th mo. extrauterine pregnancy.	Pregnancy in corner of uterus.	. .	R.	Phys'l sympt's were all evid'ce of extrauter. preg. 4th mo.	Incision in abd'n closed; abortion; recovery (letter of May 11, 1889).
4	Dr. Janvrin.	.	.	.	Extrauterine pregnancy.	Pregnancy in corner of uterus.	. .	D.	. . . . .	. . . . .
5	H. O. Marcy, pers'l letter.	.	.	.	Exploratory.	Interstitial pregn'cy thought probable.	3	R.	No symptoms. . . .	Aborted and recovery.

acteristic of pregnancy. The cervix has been described as firm, compressed transversely, elongated, and has been located high up behind the symphysis pubis, or back in the hollow of the sacrum, or operators have been unable to palpate it at all. Because of these distortions Hegar's sign of early pregnancy has been of no assistance. The use of the uterine sound in both of my cases and in nearly all of the cases detailed (in table 1) has not aided in the diagnosis. So complete has been its failure that any facts determined by it should not enter into one's judgment of the case,

ABDOMINAL SECTION COMPLICATED BY PREGNANCY NOT DIAGNOSTICATED BEFORE OPERATION.

Case.	Operator and Reference.	Condition Diagnosticated Before Operation.	Condition Found at Operation.	Result.	Symptoms, if any, of Pregnancy.	Remarks.
1	Sir Spencer Wells; Abdominal Tumor, Philadelphia, 1885.	Ovarian cyst	Ovarian cyst and pregnancy.	Recovered.	None stated.	Pregnant uter. punctured by trocar; Cæsarean section.
2	Thos. Hillars, Australian Med. Jour., February, 1875.	do do	do do do	do	None	do do patient single woman.
3	Wm. H. Byford, Byford's Dis. of Women, Med. and Surg., 4th Ed., 753.	do do	do do do	do	None stated.	do do
4	Erskine Mason, Byford's Dis. of Women and Med. Rec., N. Y., 1877, Vol. xii, p. 749.	do do	do do do	Died.	do do	Preg. uterus punctured, wound closed by sutures, abort'n and death; patient single woman.
5	Geo. Fortesque, Australian Med. Gaz., 1884, Vol. iii, p. 169.	do do	do do do	do	do do	Trocar puncture of preg. uterus; Porro's operation.
6	Esmarch, Kiel, personal letter, Kiel, 1877.	Ovarian cyst, multilocular.	do do do	Recovered.	None	Delivered of a healthy male 6 mos. after operation.
7	Pollock, London Lancet, 1862, ii, 277.	Ovarian cyst	do do do	do	None stated.	The cyst was tapped 4 mos. before operation and pat. aborted at that time.
8	Bateman, Lon. Lan., 1869, ii, 410.	do do	do do do	do	do do	. . . . .
9	J. Marion Sims, Trans. American Gyn. Soc., Vol. v, p. 108.	do do	do do do	do	do do	Patient went to term safely.
10	W. L. Atlee, Trans. Am. Gyn. Soc., Vol. v, p. 108.	do do	do do do	do	do do	Pat. died 2 mos. later from vomiting of pregnancy.
11	do do	do do	do do do	do	do do	Patient went to term.
12	F. Bird, Trans. Am. Gyn. Soc., Vol. v, p. 108.	do do	do do do	do	Absolutely no signs of pregnancy.	Patient abort'd 2d day after operation.
13	G. Kimball, personal letter. . .	do do	do do do	Died.	Pregnancy suspect'd but positively denied by patient.	Died from peritonitis.
14	do do	do do	do do do	do	Preg'cy suspected by att. physician, who explored uter. day before operation.	Died from peritonitis.
15	Dr. Dunlap, Trans. Am. Gyn. Soc., Vol. x, p. 111.	do do	do do do	do	Operator misled by statements of physician.	Patient aborted, sank rapidly and died.
16	Thad. A. Reamy, personal letter.	do do	do do do	do	No symptoms. . . .	Pat. aborted and died.
17	J. C. Warren, personal letter . .	do do	Dermoid cyst of ovary and pregnancy.	Recovered.	do do	. . . . .
18	A. Reeves Jackson, pers'l com. .	do do	Ovarian cyst, pregnancy	do	do do	Patient safely delivered at term.
19	Hunter McGuire, personal com.	do do	do do do	do	do do noted or suspected.	Patient safely delivered at term.
20	S. D. Gross, personal com. from Dr. J. M. Barton.	Exploratory.	do do do	do	None stated.	Patient aborted same night.
21	E. W. Cushing, Annals of Gyn., Boston, 1888, Vol. i, p. 335, also personal communication.	do	Parovarian cyst, 40 lbs., and pregnancy.	do	Amenorrhœa . . .	Patient safely delivered at term.
22	O. Prince, personal com.	Parovarian cyst and pregnancy.	Parovarian cyst and pregnancy.	do	do . . .	Patient safely delivered at term.
23	C. Kollock, personal com	Ovarian cyst, large. . .	Small ovarian cyst, pregnancy, twins.	do	None	Safely deliv. of twins, all well 3 mos. after.
24	Geo. E. Jarvis, Abst. of Records Hartford General Hospital.	Ovarian cyst (?)	Ovarian cyst, pregnancy.	Died.	None stated.	Patient aborted on 3d day and died.
25	H. A. Kelly, personal com. . . .	Exploratory.	Large elongated ovary, 2¾ in. long, ¼ in. wide, and pregnancy.	Recovered.	None	Safely deliv. at term by forceps of living child.
26	Dr. Cameron, St. John's Hospt., Toronto, personal com. from A. H. Wright.	Hydrosalpinx	Hydrosalpinx and pregnancy.	do	do	Safely delivered at term.
27	Dr. Cameron, St. John's Hospt., Toronto, personal com. from Dr. A. H. Wright.	Ovarian cyst.	Ovarian cyst, pregnancy.	do	do	Has now nearly reached full term.
28	Dr. Winckel, Munich, personal com. from operator.	Ovarian cyst, multilocular.	do do do	do	do	Pat. safely deliv. 3½ mos. after op.; when uterus expos'd child moved vigorously.
29	Sir Spencer Wells, Wells' Abd. Summary, p. 119.	Multilocular ovarian cyst.	do do do	do	do	. . . . .
30	do do p. 120.	Ovarian cyst.	do do do	do	do	Abortion on 6th day.
31	Dr. John E. Summers, Omaha, pers'l com. fr. Dr. R. C. Moore.	do do	do do do	do	do stated.	. . . . .
32	do do	Ovarian cyst and pregnancy.	do do do	do	do	. . . . .
33	Mr. Burd Shrewsbury, Wells' Abd. Surgery, Ed. 1885.	Ovarian cyst.	do do do	do	do stated.	Abortion.
34	Mr. Cook, London Lancet, Vol. ii, 1865.	do do	do do do	do	do	Abortion.

and I am in great doubt if it should be used at all. Besides, the great difficulty of introduction and the danger of perforating the uterine walls are not altogether innocuous. In sixteen cases there were either no signs stated, or an emphatic statement that there were no signs of pregnancy present. Granted that in a given case of fibromyxoma the diagnosis of pregnancy is made, how does the operator know that the gestation is not ectopic, or that it is not located in a rudi-

PREGNANCY UNCOMPLICATED BY NEW GROWTHS.

Case.	Operator and Reference.	Condition Diagnosticated Before Operation.	Condition Found at Operation.	Result.	Symptoms, if any, of Pregnancy.	Remarks.
1	Olshausen, personal com. Dr. F. C. Bressler.	Ovarian cyst	Pregnancy and hydramnion.	Recovered.	None stated	Mistake discovered after abd'l incision.
2	Wm. Varian, Phila. Med. and Surg. Rept., 1888, Vol. ix, 457.	do do	Pregnancy and hydramnion.	do	None stated; patient wilfully deceived operator.	Successful Cæsarean section.
3	O. Prince, personal com	Fibromyxoma.	Pregnancy	do	Patient deceived operator by giving history of prof. menstruation and gradual increase for long period.	
4	Jas. Overton, Nashville Med. Jour., July, 1866.	Ovarian cyst	do	do	None stated.	An amusing acc't given in Nashville Med. Journal.
5	Warren, Brit. Med. Jour., Vol. ii, 1881.	Extrauterine pregn'cy.	do	Died.	Mammary changes, nausea and vomiting; expulsion of decidual memb.	Porro's operat'n; coroner investig'd case & op'r exonerated.
6	Joshua Bradford, personal com. Dr. W. W. Dawson.	Ovarian cyst	do	do	Operator misled by husband and physician.	statem's of patient's
7	Henry Miller, personal com. Dr. D. W. Yandall.	do do	do	. . . . .	. . . . .	Both op'tors now dead
8	Geo. W. Bayless, personal com. Dr. D. W. Yandall.	do do	. . . . .	. . . . .	. . . . .	and cases unpublished, hence particulars are unknown.
9	E. E. Montgomery, pers'l com. from operator.	Enlarged retroverted uterus, pregnancy suspected.	Pregnancy	Recovered.	No symptoms, but enlarged uterus.	Safely deliv'd at term; well since.
10	Prof. Czerny, Strassburg, pers'l com. from operator.	Elongated cervix, uterus antiflexed, pregnancy not suspected.	do	do	Mammany changes.	Safely deliv'd at term; good recovery.
11	Joseph Price, Philadelphia, personal com.	Adherent ovary and pelvic adhesions.	Pelvic adhesions and pregnancy.	do	None	

mentary horn of a bicornated uterus. Experience has shown that these errors have occurred, and if the diagnosis is to be exact, differentation is demanded. But the possibility of the diagnosis of simple ectopic gestation before rupture of the tubal sac and hæmorrhage is at least vigorously assailed, not only abroad, but in America. Manifestly this is no time for entering into the discussion of the merits of this last important question. I would not have it understood that, in my opinion, the diagnosis of early pregnancy as a complication of fibro-myxoma, *i. e.* before the fourth month, is impossible in all cases, but that the diagnosis is at the best a matter of presumption, and that it is often impossible when immediate operative interference is demanded. With no desire to be critical, I must say that many of our text-books give very meagre accounts of pregnancy as occurring with fibroids. Barnes, after writing at length, came to the conclusion "that the chief characteristic in the complication was the want of uniformity in the uterus." His statement regarding the diagnosis of pregnancy with ovarian cyst is equally as clear. Thomas makes no mention of the complication, and Byford, after referring to the mistakes made by himself, Sims, Wells and others, says: "A careful examination of the cervix uteri, the abdomen and the breasts for evidences of pregnancy will seldom fail to make the diagnosis of this complication clear." Hart and Barbour, Emmett, Hewitt, Simpson, Scanzoni, Courty and many obstetric authors either do not mention the complication, or advise waiting. Prof. Skene relates the histories of two cases wherein pregnancy occurred with fibroids, and in which the diagnosis was not made until months later. Karl Schroeder expresses the opinion "that it may be exceedingly difficult to differentiate between simple fibroids and fibroids complicated by pregnancy." Hirst (*Am. Sys. Obstetrics*) says: "In rapid growing soft myxoma the diagnosis may be exceedingly difficult or impossible." Gusserow (*Cyd. O. G.*, vol. ix) rather neglects early pregnancy, but attributes the error in the latter stages to carelessness. The editor of the last edition of "Speigelberg's Midwifery," 1887, makes the statement that, "as a rule, there is very great difficulty, especially in the cases of intra-mural growth, since, at any rate during the first four or five months, they often conceal the pregnancy. The most careful examination may not elucidate the case." After the fourth or fifth month the error has occurred but three times. In Karström's case ascites as a complication obscured the diagnosis. In the case of Prof. Freund, of Strassburg, the patient, 50 years old, always sterile, presented no symptoms that led even to a suspicion of pregnancy. It is only fair to Dr. Bernays to say that he suspected the possibility of pregnancy, but from the history of the case there seemed no ground for the suspicion, and the suspicion was not confirmed in consultation.

There is no error in diagnosis which brings the physician into so much undeserved disrepute in the popular mind as a failure to recognize the presence or absence of pregnancy. Yet I am familiar with several cases where this error has either led to abdominal section, or all the preparations for one have been made. Recently a member of the British Gynæcological Society amused a meeting exceedingly by relating a case wherein a specially qualified operator journeyed many miles to a case.

After his arrival, late in the afternoon, he examined the case carefully, decided the growth to be fibroid, and that it should be removed. Being much fatigued by his journey he decided to remain and perform the operation the following morning. Early the next morning he was gravely informed that his services would not be required, as the patient had, during the night, given birth to a fine baby, and the tumor had disappeared. Nor does this experience stand alone. Others have brought cases to the operating table with a dilating os uteri. Of the nine cases of simple pregnancy found in the table, five of them occurred early in the history of abdominal surgery, when methods of differential diagnosis were not as well taught and practiced as now. I want to call your attention particularly to the case of Dr. Wm. Varian. From the history of the case I have no doubt that many, if not all of us, would have been led into the same disagreeable error. Dr. Prince had a similar experience. The frequency of the complication of undiagnosticated pregnancy in single women will be noted in the tables. I am reminded of a remark attributed to the late Prof. MacNaughton, in answer to the inquiries of an anxious mother who had called him very late one night to see her daughter, who had just returned from a ball in a blissful state of intoxication: "Ah, madam, the best slip, the most cautious fall; your daughter will be better in the morning." It is well to have the quaint saying of the good old Scotchman always in mind when single women present themselves with abdominal tumors, and we should never be in a hurry to operate. The history obtained from the patient, and often from her relatives as well, will be full of deceit at least, and may be, as in Prince's case, made to fit minutely a variety of actual disease. Such cases should be subjected to the most painstaking physical examination; nor should any protestations upon the part of the patient deter the surgeon from making a complete examination of the vagina and breasts, as well as of the abdomen. His judgment must be based entirely upon the physical examination.

Pregnancy as a complication of ovarian cyst is met with considerable frequency, and is not always diagnosticated before operation. We can hardly enter into the discussion of the symptoms, for in the twenty-eight cases that go to make up the table none are stated save in one case, amenorrhœa. In some of the cases the operators state that there were absolutely no signs of pregnancy. The period of gestation in twenty-one cases was before the fourth month. Three others occurred in single women, and the remaining two cases were at about the fifth month. The presumptive signs of pregnancy occurring with fibro-myxoma are, in cases of ovarian cyst, obscured or modified; yet to some of them greater diagnostic value can be attached. Close attention to menstrual disorders will occasionally determine the fact that the patient's menstruation has been perfectly normal until a recent period, when it has ceased altogether. This is sufficient ground for suspicion. The examination of the breasts should be a matter of routine; yet the evidence obtained will be of no great value. The vaginal examination here will be of greater value than with fibro-myxoma. If the uterus can be palpated and found regularly enlarged, yet independent of the tumor, if the cervix is softened and os patulous, if the vaginal walls are tinted, then there exists strong presumptive signs of pregnancy. Hegar's sign in such cases, if demonstrable, makes the diagnosis absolute. Palpation of the abdomen in the earlier months, when the error occurs, is of no value. When the uterus rises into the abdomen, then palpation and auscultation are with ballottement, and the sign of Braxton-Hicks sufficient, as a rule, to make the diagnosis. But the pregnant uterus may be obscured anteriorly by the large cyst; it may be retroverted and impacted in the pelvis, or drawn up and dislocated laterly by the rapidly increasing cyst, so that it will be impossible to explore it satisfactorily; then the diagnosis is impossible. When the slightest suspicion of pregnancy exists in connection with ovarian cyst, the use of the sound is absolutely unjustifiable, although it seems, in the cases where it was used, that it only confirmed the error in diagnosis. Accumulated experience has shown conclusively that abdominal section for ovarian cyst in the pregnant woman should be done generally and without the previous induction of abortion.

Conclusions:—1. Finally, from the study of the seventy cases, I am convinced that the errors of diagnosis are dependent, in a large proportion of the cases, upon conditions which make it absolutely impossible, when these conditions recur in other cases, to avoid the same diagnostic conclusions.

2. That it is the duty of every operator, before making an abdominal incision, to secure personally, or by a specially qualified assistant, a fully classified, written statement of the facts which go to make up the clinical history of the case, together with the results of the physical exploration made by the operator and his consultants, using a formal blank statement (that of Sir Spencer Wells, for example), so that no facts may be omitted. That no part of this duty should be delegated, except under supervision, to internes of hospitals.

3. That the probable diagnosis should be based upon the physical signs contained in the notes, corroborated, with few exceptions (unmarried and ignorant patients), by the rational signs contained in the clinical history, and not by simple abdominal palpation and "the dim light of a pelvic examination."

4. That whenever the slightest probability of pregnancy exists, it should be fully explained to the patient and her friends.

5. That the necessity for operative relief and the consequences of delay or neglect should be carefully stated to the parties interested, before obtaining their formal consent to the operation.

6. That it is the duty of every operator to report fully all such cases, that the methods of diagnosis may be improved, if possible.

7. That it is the duty of the profession at large to maintain that pregnancy may be absolutely concealed, especially prior to the fourth or fifth month, by other intra-abdominal conditions.

Bibliography in addition to references found in tables:

Barnes, Simpson, Hart and Barbour, Hewitt, Jones, Courty, Scanzona, Hagar and Kaltenbach, Pean, Hofmeier, von Flammerdingle, Tait, Wells, Thomas, Emmett, Skene, Byford and Goodell.

Obstetrics—Barnes, Playfair, Simpson, Leichman, Schroeder, Speigelberg, Cazeaux and Tarnier, Lusk.

Reports—"London and Edinburgh Obstetrical," "St. George and Guy's Hospital Report," "Journal British Gynæcological Society," "American Journal of Obstetrics," "Annals Gynæcology," "Transactions of the American Gynæcological Society," etc.

CHRONIC ENDOCARDITIS.

Read in the Section of Practice of Medicine at the Fortieth Annual Meeting of the American Medical Association, June 28, 1889.

BY FRANCIS DELAFIELD, M.D.,
OF NEW YORK.

It is proper that I should offer to you some reasons for selecting so ordinary a disease as is chronic endocarditis as the subject for this paper. But the ordinary diseases are, after all the important ones, and often as we see them we never really know them well enough. Any fresh record of facts, any new way of grouping, or of looking at these facts must be of some little service. It is the object of this paper, therefore, not to give a systematic account of endocarditis, but to draw attention to some features of the disease; not to give a history of the views of other observers, but to state simply what I have put together from my case books and post-mortem records.

Of the ordinary diseases few are more common than is chronic endocarditis. In few of them is there so great a variety in the severity of the symptoms. From the condition of a trifling inconvenience to that of a distressing and fatal disease there seems to be no limit to its various phases. We constantly meet with patients whose heart valves are seriously damaged and who yet enjoy good health, can follow laborious occupations and are often ignorant that they have any disease. On the other hand, we, with equal frequency see patients in whom the same valvular lesions are attended with the most serious symptoms and with death. It is, therefore, a matter of practical importance to determine as accurately as we can why it is that some of these patients do so well and others so badly. For it is in this way that we are most likely also to determine a rational treatment for the disease.

It seems evident that nearly all the most important symptoms of chronic endocarditis are due to the disturbances produced in the distribution of the blood throughout the body. It is by these disturbances of the circulation that the cerebral and pulmonary symptoms, the loss of nutrition and the dropsy are produced. The problem before us, therefore, is to determine why in some cases of chronic endocarditis there are disturbances of the circulation, and why in other cases there are not.

It might seem at first that the solution of this problem is an easy one, that the disturbances in the circulation are simply in proportion to the stenosis or insufficiency of the valves. A very moderate experience, however, is sufficient to show that this is not the case. The problem is a complicated one, and the disturbances of the circulation are due to a number of causes which act singly or together.

We may enumerate these causes as follows:

The endocarditis.

The dilatation and hypertrophy of the ventricles.

The inflammation or degeneration of the wall of the heart.

The inflammation of the coronary arteries.

The abnormal heart action.

The associated pulmonary emphysema, chronic endarteritis, and chronic Bright's disease.

To follow out the mode of action of all these causes is not possible in a paper of this character. I confine myself to the consideration of three of them: The endocarditis; the abnormal heart action; and the secondary and complicating changes in the kidneys. Not that the others are unimportant, but that these three are perhaps the most important of all.

1. The Endocarditis.

In thinking of persons with valvular lesions, we must remember that some of these persons, while under our observation, are suffering from chronic endocarditis, and that some are only suffering from the changes produced in the valve by an endocarditis which no longer extsts. In the one case they suffer from a chronic inflammation, in the other from a deformity. It may be indeed that such deformity leads to progressive changes in the cavities and walls of the heart. But this is much less likely to happen than if the changes in the valves are also progressive.

Chronic endocarditis may directly follow acute endocarditis; it may be developed after a long interval in valves damaged by an old attack of endocarditis; it may from the first be a chronic lesion. We find, especially in children, an uninterrupted history of cardiac symptoms beginning with an acute attack and continuing as a chronic disease for years. We find in older persons with marked cardiac symptoms developed late in life a history of an acute endocarditis in childhood, from which they had apparently recovered. We find in adults the gradual development of one cardiac symptom after another, so slow and so gradual that we can hardly date the beginning of the disease.

Chronic endocarditis, when it has once commenced, seems to have a natural tendency to persist and to involve other portions of the endocardium. The cases vary as to the activity of the endocarditis and the intermissions in the course of the inflammation. It is apparently possible for the endocarditis to stop at any time, and the valves will then undergo no further change. Chronic endocarditis is a productive inflammation with the formation of new tissue, but without exudation. In its most active form there is a very considerable growth of cells and also a death of cells, so that the inflamed endocardium is thickened in some places, ulcerated in other, and on the roughened surfaces thus made, thrombi are formed. This is the most active and dangerous form of the disease. In its more chronic form the growth of cells is not as great, the cells do not die, the basement substance is thickened. Although the surface of the endocardium is somewhat roughened, and small vegetations are often formed, there are no thrombi.

In either form of inflammation there may be added degeneration or calcification of the inflamed endocardium and of the thrombi. It may very well happen that the patient, after suffering from the chronic form of endocarditis for years, may then develop the more active form in the same valve, or in one of the other valves.

In the more active form of the disease a large number of the cases run their course within six months from the time of the commencement of their symptoms. A considerable number do not live longer than six or seven weeks. The symptoms are pronounced: Disturbed heart action; delirium, convulsions, paraplegia; cough, hæmoptysis, dyspnœa; nausea and vomiting; dropsy; loss of flesh and strength and anæmia, and a rise of temperature. These patients are apt to get rapidly worse, but there may be intermissions, and the inflammation may stop altogether. It seems evident that in the treatment of these patients we must remember that they are suffering from an inflammation of some activity, and that rest in bed, the use of cold or of counter irritation over the heart are measures likely to be of use.

On the other hand, in the slow form of endocarditis the disease lasts for many years. There are usually intermission in its course, and it may stop altogether at any times. Many of the patients have no symptoms. In those who do, some one symptom is first developed and then, as the disease progresses, others are added. These patients are regularly better for an out of door life, with as much exercise as they are able to take.

2.—The Abnormal Heart Action.

It is possible for a chronic endocarditis to run its entire course with a perfectly regular action of the heart. This, however, is the exception. The rule is, that the heart's action is disturbed, and this disturbance is often the most important feature of the disease, and furnishes the principal indication for treatment. Such disturbance of the heart's action may be due to:

a. The endocarditis existing as an inflammation of some activity and producing changes in the heart's action in the same way as does an acute endocarditis.

b. Such a degree of stenosis, or insufficiency of the valves as will mechanically interfere with the heart's action. This often does not become a factor of much importance until the stenosis or insufficiency are well marked, and for this reason it is easy to be deceived as to the character of the lesion.

c. Dilatation and hypertrophy of the ventricles are often present, and certainly have their effect in changing the character of the heart's action.

d. Chronic myocarditis and disease of the coronary arteries produce the most extreme and intractable disturbances of the heart's action. Fortunately they are not very common.

e. Contraction of the smaller arteries throughout the body with increase of arterial tension and venous congestion. This condition, although a frequent complication of endocarditis, nephritis, endarteritis, emphysema, and occurring as an independent condition in some cases of angina pectoris, is yet something concerning which our knowledge is imperfect. Whether contaminated blood irritates the arteries, whether the nervous centers are irritated by the contaminated blood or in what way the contraction of the arteries is produced, we do not know. But such a contraction is produced and lasts for hours, days or months. The same patient may never have but one such attack, or he may have many. In patients who have had many attacks, the muscular coat of the small arteries is thickened. Such a contraction of the arteries at once changes the character of the heart's action. It becomes rapid, forcible, feeble and tumultuous. The degree of the cardiac disturbance is apparently in proportion to the degree and suddenness of the contraction of the arteries, but is not related to the severity or extent of the endocarditis. In the early stages of endocarditis we very often see patients who

complain of dyspnœa on exertion and on lying down with precordial pain. Otherwise they feel perfectly well and have normal urine. We find the heart enlarged, its action rapid and forcible, and a murmur indicating disease of one of the valves. The radial pulse is distinctly tense. If by treatment the arteries are dilated the dyspnœa disappears, the heart's action becomes natural and the patients feel well. Or, in a further advanced and progressing endocarditis we may follow patients for years who, in spite of their endocarditis, feel well except when they have attacks of contraction of the arteries. When they have such an attack dyspnœa and other symptoms are developed and continue for weeks or months. Then as the attack subsides, the symptoms disappear and the patients feel well. The first attacks yield readily to treatment. But as time goes on the attacks are more frequent and more obstinate. The pulse is tense, but small. The heart's action is no longer forcible, but feeble or tumultuous. Occasionally we see patients who go on with a chronic endocarditis for many years, but with few or no symptoms. Then with a slight pleurisy, or pericarditis, or without discoverable cause a sudden, extreme and intractable contraction of the arteries is established, causing the most urgent dyspnœa and continuing up to the time of the patient's death. These attacks of the contraction of the arteries are at first readily relieved by the drugs which dilate the arteries—nitrate of amyl, chloral hydrate, nitro-glycerine, opium and potassium iodide. The patients do well with an out-of-door life and regulated exercise. But as the endocarditis advances and the valves are more damaged, especially by stenosis, these attacks are less readily relieved, and it becomes necessary to keep the patients more and more quiet.

f. Unknown causes which apparently act through the nerves which regulate the action of the heart. These form a large, important and obscure group of cases. In some of these cases the abnormal heart action is associated with advanced disease of the valves, and it is only by the results of treatment that we can discriminate how much of the disturbance of the heart's action is due to the valvular lesion, and how much to nervous influences. The pulse is of low tension, feeble and rapid. The heart's action is feeble or exaggerated. The condition of the patients is often very bad, and yet in some of them very marked improvement is obtained by treatment.

These patients at first require complete rest, then massage and later regulated exercise. The most efficient drugs are digitalis, strophanthus, caffein, convallaria and barium chloride. The heart seems to be always really a weak heart even though its action is exaggerated. It is often natural to believe that there is degeneration or inflammation of the walls of the ventricles, but yet after death no such changes are found. In other cases the endocarditis is not advanced, the valves are but slightly narrowed or insufficient, there is little or no change in the size of the heart. The heart's action is rapid, either feeble or exaggerated. The pulse is soft and rapid. The patients often have pain or abnormal sensations referred to the heart, the general health may be very much impaired. Although these patients have endocarditis, yet it is really the abnormal heart action which makes them ill and calls for treatment. Some of these patients are very easily managed, the heart's action soon becomes normal, the pain disappears and the patients feel well, although the lesion of the valve still exists. Some of them, on the contrary, do not improve. The disturbance of the heart's action and other symptoms continue, but yet the patients do not die, nor get worse beyond a certain point. There are, however, occasional cases in which the heart's action becomes very bad, the patients are very feeble and die. After death we find but moderate changes in the valves and no changes in the walls of the heart. The management of these cases is apt to be difficult. Attention to the diet, the general health, the habits, the climate, the exercise is of especial importance. Of drugs, one or other of the cardiac stimulants is often indicated.

3. The secondary and complicating changes in the kidneys.

Of the persons who suffer from chronic endocarditis a large number never have any complicating disease of the kidneys. In the persons who die from endocarditis it is rare to find normal kidneys. In judging of the frequency of the kidney lesions the most certain criterion is the autopsy. During life it is not sufficient to examine for albumen and casts, which are often absent, but the quantity of the urine, its specific gravity, and the proportion of urea to the ounce of urine must also be determined. Advanced changes in the kidneys often exist in patients whose urine is said, after a superficial examination, to be normal.

In persons who die from chronic endocarditis we find :

Chronic congestion of the kidney.

Chronic degeneration of the kidney.

Chronic nephritis.

1. Chronic congestion of the kidney.

The kidneys are of medium size, or large. Their weight is increased, they are hard, uniformly congested, their surfaces are smooth. The epithelium of the cortex tubes is opaque, flattened or swollen. The glomeruli show a dilatation of the capillaries, with more or less thickening of their walls and the swelling of the cells which cover their walls. In the stroma there is nothing but some exaggeration of the subcapsular areas of connective tissue which are found in

normal kidneys. The arteries are normal, the pyramid veins are congested and sometimes dilated. The urine is diminished in quantity at the times when the heart's action is bad, and returns to the normal when it is better. It is apparently never increased except from accidental causes. The specific gravity is usually between 1020 and 1025, but may for a time be down to 1010, or up to 1035. The quantity of urea is rarely less than 10 grains to the ounce, it may be as high as 21 grains. The specific gravity and the quantity of urea must be judged by examining the urine of 24 hours for several days, with the proper allowance for diet and exercise. Albumen and casts are absent or present in very small quantities. The effect of the congestion of the kidneys on their functions is simply to diminish the quantity of urine. The quality of the urine is good, and the exudation from the vessels amounts practically to nothing. Apparently the only way in which this lesion of the kidney can add to the symptoms of the endocarditis, is by the diminution in the quantity of the urine.

2. Chronic degeneration of the kidney.

The kidneys are considerably increased in size and weight, weighing together from 16 to 20 ounces. Their surfaces are smooth; the cortical portion is thickened, of pink or white color, the pyramids are red. The gross appearance is that of the so-called large white kidney. The epithelium of the cortex tubes is swollen and opaque. In the glomeruli there is dilation of the capillaries. There are no changes in the stroma, or in the arteries, the pyramid veins may be congested. The quantity of the urine varies with the changes in the action of the heart, sometime abundant, sometimes scanty, sometimes suppressed. The specific gravity is not diminished, nor is the proportion of urea to the ounce decreased. Albumen and casts in small quantities are more frequently present than with chronic congestion. While it is difficult to separate the kidney symptoms from the heart symptoms, yet one has the impression that this kidney lesion is more serious than chronic congestion, and has its effect in increasing the symptoms of the endocarditis, especially the loss of nutrition and the anæmia.

3. Chronic nephritis.

A chronic inflammation of the kidneys may follow chronic congestion or chronic degeneration, it is then evidently a direct result of the endocarditis; or it may be developed as an independent inflammation and is to be regarded as an associated and not a secondary lesion.

a. Chronic nephritis following chronic congestion of the kidney. The kidneys remain increased in size, or become somewhat smaller. The capsules are adherent, the surface of the kidney is finally nodular, the consistence of the organ remains hard, and the general venous congestion continues. The epithelium of the cortex tubes is opaque, swollen or flattened. The tubes may contain coagulated matter. The straight tubes of the cortex and pyramids may contain cast matter. The capillaries of the glomeruli are swollen, their walls are thickened, there is an increase in the size and number of the cells which cover the capillaries. There is a considerable growth of connective tissue in the stroma distributed according to the arrangement of the normal subcapsular wedges. Within these masses of new connective tissue the tubes and glomeruli are atrophied. The walls of the arteries may be thickened, the capillary veins in the cortex may be dilated and their walls thickened. The quantity of the urine varies very much at different times in the same patient, sometimes it is above, sometimes below the normal. The specific gravity falls to 1020 or 1016. The proportion of urea to the ounce is somewhat diminished. Albumen and casts in moderate quantities are regularly present at some time in the course of the disease, but during much of the time they are entirely absent. The patients seems to be especially liable to spasmodic dyspnœa and to loss of flesh and strength.

b. Chronic nephritis following chronic degeneration of the kidney. The kidneys are large, their surfaces are smooth, the cortex thick and white, the pyramids red. The epithelium of the cortex tubes is opaque, flattened or swollen. The convoluted tubes contain coagulated matter, the straight tubes cast matter. The capillaries of the glomeruli are dilated and the cells covering the capillaries are swollen. There are no changes in the arteries. The quantity of the urine varies at different times, often it is very scanty. The specific gravity keeps close to the normal, or may even be above it. The proportion of urea to the ounce of urine is not diminished. Albumen is regularly present in considerable quantities, casts are somewhat less constant. The patients who have this form of nephritis are apt to exhibit the anæmia and dropsy in a very marked degree and to get worse rapidly.

Chronic nephritis is associated with chronic endocarditis, but apparently not caused by it.

Such an association of chronic nephritis with chronic endocarditis is of very frequent occurrence. Either one of the lesions may be developed the first, either one may be of the most importance.

In all of these cases, while there is much variety in the gross appearance of the kidneys the changes in structure are much the same. The epithelium of the cortex tubes is degenerated; some of the glomeruli are converted into fibrous tissue, in others there is only a growth of the tuft cells; there is a considerable growth of connective tissue in the stroma; the walls of the arteries are thickened. There are, however, two points in which these kidneys differ from each other. The quantity of exudation from the blood vessels

and the rapidity of the changes in the kidney. To these two points of difference correspond the differences in the clinical histories. We may, therefore, for clinical purposes distinguish three forms of chronic nephritis.

1. Chronic nephritis with large and continued exudation of serum from the blood vessels of the kidney into the tubes. The urine is sometimes diminished, sometimes very much increased in quantity. The specific gravity is lowered, often at about 1016. The proportion of urea to the ounce of urine is diminished. The urine constantly contains considerable quantities of albumen and numbers of casts. The patients do badly. Dropsy, anæmia, loss of flesh and strength and chronic uræmia are the regular symptoms.

2. Chronic nephritis with moderate and intermittent exudation from the blood vessels. The urine is more or less increased in quantity, except when the patient has an attack of contraction of the arteries, then it is diminished. The specific gravity is lowered. The proportion of urea to the ounce of urine is diminished. During much of the time no albumen or casts are present, but from time to time when the patient is doing badly in other ways they appear in moderate quantities. These patients usually live for a number of years, slowly getting worse. They are especially liable to attacks of contraction of the arteries with dyspnœa, headache, sleeplessness and convulsions.

3. Chronic nephritis with little or no exudation from the blood vessels, the nephritis advancing very slowly. These kidneys are considered by some authors to be examples of fibroid degeneration, rather than of chronic inflammation. The urine shows no change except that the specific gravity and the proportion of urea from year to year are gradually lowered. Some of the patients never have any renal symptoms. Some of them have attacks of contraction of the arteries. Some of them simply lose some flesh and a great deal of strength and die quietly.

PROPERITONEAL HERNIA.

Read in the Section of Surgery and Anatomy at the Fortieth Annual Meeting of the American Medical Association, held at Newport, June, 1889.

BY CHARLES W. DULLES, M.D.,

SURGEON TO OUT-PATIENTS IN THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA, AND IN THE PRESBYTERIAN HOSPITAL, IN PHILADELPHIA.

The subject of properitoneal hernia is so little known in this country that I believe that there have been but three cases with this title recorded by American surgeons. One of these I reported to the Philadelphia Academy of Surgery, December 6, 1886; the second was reported by Dr. Hartley, of New York, in the N. Y. *Medical Record*, about a week later; and the third by Dr. Torrey, of Brooklyn, in the *Annals of Surgery*, March, 1888.

For this reason I have thought it worth while to bring the subject before this body for consideration and discussion.

In studying the literature of properitoneal hernia I have come to the conclusion that very many cases must have come under the observation of American surgeons who did not classify them as they would have done had they understood them thoroughly. One reason for this conviction rests upon the titles which are at the head of a number of articles upon hernia, as they may be found recorded in the Index Catalogue of the Surgeon-General's Library at Washington. Another rests upon the fact that since the careful studies of this subject by Streubel, Krönlein and Küster in Germany have been published, a considerable number of cases have been specifically recorded in that and in other countries.

It must not be supposed that this fact indicates a mere refinement in diagnosis. It means much more than this; for, before these studies were made, the history of properitoneal hernia was one of unvaried disaster. The diagnosis was, we may say, invariably made on the *post-mortem* table. Since Krönlein pressed his opinions upon the attention of his professional brethren the state of affairs has been very different. Now this form of hernia can not only be diagnosticated during the life of the patient, but it can also be successfully treated.

In a general way a properitoneal hernia may be said to be one which occupies an abnormal position within the abdominal or pelvic wall in front of the peritoneum. Sonnenburg has suggested that the term præperitoneal would be more exact. This is true; but we may, I think, hold to the term proposed by Krönlein, lest we introduce confusion by a change which is not important.

A true properitoneal hernia lies between the parietal peritoneum and the overlying mass of muscles, or—when pelvic—the bones. There is also a form of hernia which occupies a position between the planes of the abdominal muscles, which may be called "intermuscular;" and another which lies outside of them and just beneath the skin and superficial fascia. For the last Küster has proposed the term "hernia inguino-superficialis," and he divides it into three varieties: 1, hernia inguino-superficialis abdominalis; 2, hernia inguino-superficialis cruralis; and 3, hernia inguino-superficialis perinealis; as they occupy respectively the region of the lower abdominal wall, of the thigh, or of the perineum.

The three principal forms of hernia which escape from the usual route of the inguinal canal and the scrotum are: properitoneal, intermuscular and superficial hernia.

I have now collected and studied the histories of thirty-four cases of properitoneal hernia. In

twenty-seven cases the diagnosis was never established until after the death of the patient; in seven cases it was made during life and all of the patients were saved; one without operation and six after operation. This fact alone would justify an attempt to spread the knowledge of this form of hernia.

The history of cases of this sort seems to be that they are, for the most part, originally inguinal herniæ, and often accompanied by an undescended testicle. After occupying the inguinal canal for a certain time, the obstruction offered by the incarcerated testicle, or sometimes by a truss, forces the protrusion, under a strain, out of the canal and into the loose tissue between the peritoneum and the muscles, or between the muscles themselves, or between the whole mass of muscles and the skin and superficial fascia. They usually occupy a position above and parallel to Poupart's ligament, and simulate an encysted hydrocele of the spermatic cord. They are sometimes so large that they overlap Poupart's ligament and hang down over the thigh. Prof. S. D. Gross has recorded a case of this sort. They often extend upward and outward as far as the anterior superior spine of the ilium. On investigation they can often be grasped in the hand through the abdominal wall and felt as distinct and movable tumors.

The treatment of properitoneal hernia is usually by a cutting operation. I have found the record of only one case which was successfully treated by taxis; and my investigations lead me to the belief that this is the most dangerous way to treat it. The most natural plan is to make a free incision, similar to that for incarcerated inguinal hernia, and to follow this up with whatever dissection is necessary to restore the bowel to the cavity of the abdomen.

Probably the best method of operating would be to make an incision through the linea alba, as if for a laparotomy, and to draw the intestine back from the hernial sac, instead of pushing it back as in the usual operation of herniotomy. By this means there ought to be no danger of a reduction *en masse*, which is the most dangerous thing which can happen in such operations.

For further information in regard to this whole subject I cannot do better than to refer you to the writings of Streubel, Krönlein, Trendelenberg and Küster, of which—with others—I have given a list in a paper published in the *Medical News*, January 22, 1887, and to the excellent paper by Drs. Hartley and Torrey to which I have referred above.

4101 Walnut St.

DR. LONG, U. S. Marine-Hosp. Service, said that he had operated for radical cure twenty-four times in cases of reducible hernia, with two failures to cure. There had been no fatalities or even apparent danger to life. He had had some experience that might interest the members of the Section. In one of his cases he had operated and discharged the patient two months subsequently apparently cured. This patient was readmitted to hospital eight months after with pneumonia and died. The speaker made a careful dissection of the hernia after the death of the patient. The operation had been a modified Czerny's in which the stump had been sewed up between the pillars of the ring, hoping to secure union and have the stump act as a plug. He found on dissection that there was union between the pillars throughout the length of the opening, but no sign of the stump enclosed. On the inside he found a small cone-shaped (with the top of the cone cut off) portion of the peritoneum resting against the inner surface of the ring. The top of the section of cone was nearly ¼ of an inch thick, and certainly of itself offered considerable resistance. Dr. Long thought favorably of McBurney's operation and did not think, in the light of experience, that sewing the stump of the amputated sac in the ring was of any advantage whatever. In his twenty-third case he met with a condition of things that was peculiar. There was no superfluous fat and the sac was easily reached, but the adhesions between it and the tunica vaginalis were so intimate that it seemed impossible to separate them. During the operation he unwittingly opened the cavity of the tunica vaginalis, and subsequently opened the sac, thinking by inserting his finger he could more easily effect a separation. This was found impossible, and the wound in the sac was closed and the mass returned, and the pillars closed. The external wound was left open, hoping to reinforce the parts by cicatricial tissue. He hoped for a good result in this case in spite of the difficulties. As to the matter of particular operations, choice of sutures and kind of stitches, they were matters to be relegated to the choice, fancy or experience of the operator. The speaker said that he had experimented with varieties of catgut. He formerly used the catgut preserved in juniper oil because of its great pliability, but found that it would undergo solution in from four to six days, while that prepared with chromic acid, No. 3 size, will hold for from twelve to eighteen days before undergoing solution, and by that time we will have accomplished all that may be expected from sutures. There is no question as to the advisability of curing hernia by surgical measures.

PAINFUL MUSCULAR SPASMS AFTER FRACTURE PERFECTLY CONTROLLED BY SULFONAL.

BY EDMUND ANDREWS, M.D.,
SENIOR SURGEON OF MERCY HOSPITAL, ETC., CHICAGO.

The ordinary anodynes and antispasmodics do not give us full satisfaction in the muscular

spasms following fractures. It is true that they help somewhat, yet even under the influence of morphine the patient, though quiet when awake, is aroused from his sleep by repeated painful contractions, which continue for days to be a serious source of distress.

In three such cases I have given sulfonal in doses of 15 grs., repeated if necessary, say once in four to six hours. In each case the medicine has stopped the spasmodic twitches completely, giving the patient a wonderful relief. If further experience confirms this result, sulfonal will be a great boon to surgeons and to their patients.

There are other varieties of reflex spasm which may perhaps be relieved by the same remedy. For instance, in hip disease, the inflamed head of the femur provokes frequent nocturnal spasms of the adjacent muscles, causing the patient to awake with a scream. Extension apparatus generally controls this, but in many instances an adjuvant is needed for a time, and sulfonal may prove to be as effective for this purpose as it is in fractures.

It is probable that numerous other varieties of reflex spasm may be equally benefited by the remedy, so that investigations ought to be made in this direction.

No. 6 Sixteenth St., Chicago.

MEDICAL PROGRESS.

CHLOROFORM ACCIDENTS.—Apropos of a recent discussion in the Paris Académie de Medécine, PROF. DASTRE classifies the causes of fatal accidents resulting from the administration of chloroform as follows: Primary syncope, respiratory or cardiac; secondary syncope; toxic apnœa. In the first class death results from the first inhalations (initial shock); this occurs from reflex cardiac syncope in nervous, impressionable individuals weakened by suppuration or hæmorrhages, or in individuals otherwise healthy who suffer from irregularity of the heart's action (in animals with those which exhibit habitual cardiac irregularity, as the dog), or they arise from reflex apnœa under analogous conditions. In the second class (secondary or bulbar syncope) narcotism is more advanced; the heart's action may be arrested suddenly or gradually; the arrest of respiration may be slow and progressive or sudden from tetanic spasm of the glottis. The third class of cases comprises those of fatal intoxication in which the agent has been administered too freely or for too long a time, and the anatomical elements, particularly the nerve elements, have lost their vitality. In this form of chloroform poisoning there is a destruction of mechanism which seems to involve derangement of the entire respiratory apparatus.

The real danger in the administration of chloroform is from the effects produced upon the heart and not from those upon the respiratory organs. In the case of heart failure we are practically without resource, while in the case of respiratory insufficiency we have a remedy in artificial respiration. In opposition to the generally accepted opinion, the arrest of the heart's action is a phenomenon of excitation and not of paralysis or paresis. This is true of at least four out of five cases.

As a remedy for chloroform intoxication Prof. Dastre proposes a mixed form of chloroform administration. Inasmuch as in the majority of cases it is the stimulation of the inhibitory cardiac apparatus that is concerned, section of the two vagi nerves would constitute the theoretical remedy. This being inadmissible, we have still a practical and delicate means of arriving at the same result, *i. e.*, the administration of atropin. This is really equivalent to section of the vagus, which destroys the excitability of the cardiac filaments as well as their bulbar nucleus. Atropin, however, should not be employed alone on account of its excitative tendencies, which may be obviated by the concomitant administration of its antidote, morphine. The action of the combination of atropin, morphine and chloroform has been experimentally tested in the case of dogs. The dog is infinitely more subject to chloroform accidents than is man. In the laboratory of Sorbonne one dog in three was lost by accident. During the last ten years all the dogs have been anæsthetized by the mixed method, and in hundreds of cases of narcosis there has not been a single death. The mode of procedure is as follows: Ten minutes before the operation a subcutaneous injection is made of a solution containing 2 centigrams of muriate of morphia and 2 milligrams of sulphate of atropia per cubic centimetre. Of this half a cubic centimetre per kilogram of the animal's weight is used. The administration of chloroform is then begun, 2 or 3 grams being sufficient to produce a perfect anæsthesia lasting two hours—a much less quantity than would otherwise be required, while the economy in its use greatly diminishes the danger of fatal results. This mixed method has also been used in human surgery, particularly by M. Aubert and his surgical colleagues of Lyons, who employ the following formula: An injection is made from fifteen to thirty minutes before the operation of 1½ cubic centimetre of the following solution:

Muriate of morphia	10 centigr.
Sulphate of atropia	5 milligr.
Distilled water.	10 grams.

M. Aubert gave an account of his experience with the method (Soc. Biol., April 21, 1883) in these terms: "I know of nothing more desirable or practicable. The advantages are the following: 1, safety; 2, the great rapidity with which sleep

is produced; 3, the absolute repose of the patient; 4, the quick return of consciousness; 5, the absence of unpleasant sequelæ such as vomiting. Some of my colleagues have at my suggestion employed the method, and M. Gayet particularly recommends it in ophthalmological surgery." The number of instances of its employment now mounts up (1887) into the thousands, and without the occurrence of a single accident.—*La Semaine Médicale*, August 28, 1889.

THE TREATMENT OF OZÆNA WITH GLYCERINE.—At a recent meeting of the Society of Military Surgeons in Vienna, DR. SIDLO strongly recommended the treatment of ozæna with glycerine. His method consists in daily washing out the nasal cavity with a 2 per cent. solution of chloride of potassium, to which 10 per cent. of glycerine has been added. This is followed up with the insertion of rolls of cotton soaked in a mixture of one part of glycerine and three parts of water, the tampons being allowed to remain in place for an hour at a time. Using this method, he claims good success in the management of ozæna. The method requires some weeks to effect a cure; but no one who has treated ozæna often will think a few weeks too long to devote to any method which is likely to be successful. The one proposed by Dr. Sidlo is so simple, and apparently so rational, that it certainly seems worthy of further trial, and if other medical men can cure such cases as he has cured in this way, it will be a very useful addition to our therapeutic resources.—*Medical and Surgical Reporter.*

ANTIPYRIN IN DIABETES.—DRS. GLEY and GERMAIN SÉE report a number of cases of artificial glycosuria in dogs, in which the good effects of antipyrin in this affection were well illustrated. To a dog passing 13 grams of sugar a day, one gram of antipyrin per diem was given for eight days, at the end of which time the amount of sugar had fallen to eleven grams. At another time the quantity of sugar was reduced by the same means from about ten to less than six grams. Dr. Sée has also employed the drug in the treatment of glycosuria in the human subject with good results. Lépine and Porteret have shown that antipyrin has the effect of retarding the transformation of glycogen in the liver and muscles into glucose. M. Huchard has previously related several cases of polyuria and glycosuria, in which the exhibition of antipyrin was followed by good results. The latter author believes that this drug has a special utility in bulbar neurosis, among which he classes diabetes, polyuria and exophthalmic goitre.—*Revue Générale de Clinique et de Thérapeutique.*—*The Medical Record.*

FOR THE RELIEF OF CORYZA.—DR. KÖHLER recommends inhalations of camphor as affording great relief in the early stages of an acute coryza. He puts one teaspoonful of powdered camphor in a rather deep vessel, half fills the latter with boiling water, and covers it with a paper cone. The end of this cone is torn of so as to just fit the nose. The warm camphor-laden vapor is then inhaled through the nose, not the mouth, for a period of from ten to fifteen minutes. This procedure is repeated every four or five hours. After the third inhalation, even the most stubborn catarrh, says Dr. Köhler, will be found to have completely disappeared. Any laryngeal catarrh, which may be present at the same time, will be found to be considerably benefited by the action of the camphor vapor.—*Zeitschrift für Therapie.*—*The Medical Record.*

URETHRAL VEGETATION REMOVED BY THE AID OF THE ENDOSCOPE.—DR. F. R. EVERSOLE, of St. Louis, reports a case in which, by the aid of the endoscope, he diagnosed the presence of a venereal growth in the urethra, four inches from the meatus, and successfully removed it with the curette. The application of a 10 per cent. solution of cocaine was useful in checking the hæmorrhage. He also finds the endoscope useful in cases where there is great difficulty in passing bougies through tight strictures. The use of cocaine makes the introduction of the endoscope comparatively painless.—*St. Louis Polyclinic*, August, 1889.

ATROPHY OF THE OPTIC NERVE.—DR. WIGGLESWORTH finds that optic nerve atrophy is frequently met with in general paralysis usually as a late symptom, though it sometimes occurs early. He narrates a case in which the optic atrophy was the first sign of the disease preceding by some time the mental symptoms. Dr. Percy Smith and Dr. Yellowlees cite similar cases.—*Brit. Med. Jour.*, Sept. 21, 1889.

SUSPENSION TREATMENT.—DR. A. B. SHAW, of St. Louis, gives the results obtained in three cases by this method. The treatment extended over a period of about eight weeks, with séances every two to four days. The tractile force used, as measured in pounds by a spring balance, varied from 50 to 128. Two cases of tabes dorsalis and one of cerebro-spinal sclerosis were treated; the patients were all aged, respectively, 32, 66 and 47 years. The results obtained were extremely satisfactory in all instances.—*Weekly Medical Review*, Aug. 31, 1889.

DIGITALIS IN PNEUMONIA.—M. PETRESCII, of Bucharest, claims that pneumonia can be aborted in its early stages by giving large doses of digitalis, *e.g.*, 4 to 8 grams of the leaves in infusion daily.

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SATURDAY, OCTOBER 19, 1889.

PUERPERAL ECLAMPSIA.

Of late, much affectation of unbelief in the so-called urinæmic origin of the very large majority of cases of puerperal eclampsia has crept insidiously into the literature of the subject. This fact is particularly apparent in recent American contributions. For example, in the second volume of the *American System of Obstetrics*, PARVIN gives a most confused account of the causation of this disorder, while HIRST, the editor of the *System*, asserts that "very little is known about the etiology of the disease." We have ventured to characterize this agnostic state of mind as an affectation, since these and all other authorities base the entire prophylaxis and very much of the therapy upon the notion that in the very large majority of cases, eclampsia is the expression of a toxæmia, conditioned upon functional or organic disease of the kidneys, or upon the obstruction to the flow of urine through the ureters. Thus all authorities urge the qualitative and quantitative examination of the urine in every case of pregnancy. In event of pathological albuminuria, or in case of any other significant alteration in the quality or quantity of the urine, the mandatory indications for preventive treatment are fulfilled only by the rigorous restriction of diet to milk, the systematic use of the hot water bath, and the prompt induction of premature labor when other means fail to relieve the symptoms. All these preventive measures indicate a practical faith in the theory of renal inadequacy that belies the confession of ignorance just mentioned.

It has been well said that it is an anachronism to doubt the identity of puerperal fever with the infectious wound-diseases. The same remark is applicable to unbelief in the doctrine of the renal origin of puerperal eclampsia in the very large majority of cases. For CARL BRAUN (1857) demonstrated the dominant influence, as a causal factor, of acute renal inadequacy, while HARBERTSMA (1871) has shown the occasional etiological significance of obstruction to the flow of urine through the ureters. These teachings to-day rest on evidence, cumulative from observation and experiment, that is conclusive, and that in kind and degree closely resembles the proof of the Semmelweiss theory of puerperal fever.

The idea conceived by the individual practitioner as to the causation of puerperal convulsions is of the utmost moment to his patient, since upon this conception must depend all treatment, preventive and curative. Under all these conditions, has one the right to "count it a bondage to fix a belief," or to affect "free will in thinking?"

Doubtless some of the confusion on the subject is due to the use of the term eclampsia as indicative of a disease, and not merely as the name of a symptom. Perhaps it would be better to designate the condition in the concrete case more exactly by speaking of the eclampsia of Bright's disease, of urinary absorption, of acute yellow atrophy of the liver, and the like. Then, too, it is absolutely necessary to exclude from the notion of puerperal eclampsia, and to eliminate from the record of cases, convulsions due to epilepsy, hysteria, tetanus, meningitis, cerebral tumors, acute anæmia, and the like. Convulsions owing to such causes obviously have no relation to the morbid state under discussion.

As before remarked, the Braun-Halbertsma doctrine of eclampsia does not include *all* cases, although it is adequately explanatory of *nearly* all cases. The urinæmic theory, as presented above, is not an universal proposition.

STUMPF (1886) succeeded in the demonstration of aceton in the distilled urine of a few eclamptics, and of sugar in the urine of a few others. He is of the opinion that, under abnormal decomposition processes, there is released a nitrogen-free, toxic substance—possibly aceton or an allied body with the same reactions—which, during excretion, irritates the kidneys to the point of nephritis, destroys the coloring matter of the

blood, alters the activity of the liver cells, causes the presence of sugar, the destruction of the hepatic parenchyma to the degree of acute yellow atrophy with the production of tyrosin and leucin, and finally, by irritation of the encephalon, determines coma and convulsions (Winckel). What may be the cause of these abnormal decomposition processes, whether it be an agent of infection, exogenous in origin, or whether it arise within the body of the fœtus, Stumpf does not pretend to say. In this connection the cases of eclampsia associated with hæmorrhagic hepatitis, very lately reported by GUSTAV BRAUN, are of extraordinary interest. There are not lacking those that regard many forms of the nephritis of pregnancy as the expression of infection. They seek to explain in this way the remarkable cases of Stumpf and Gustav Braun. It has been asserted that microörganisms may enter the body through the atrium of the intestinal tract, circulate in the blood, determine destruction of tissue and capillary embolism in the kidneys, liver and other viscera, or produce toxic effects through their leucomaines. In passing it may be remarked that these observers allow bacteria to play a closely similar *rôle* in nephritis as it occurs in men and non-gravid women. For the present, however, the cases are too few in number and the facts altogether too meager to admit of generalization. But enough has been learned to stimulate research, to necessitate more exact anatomical diagnosis, to compel more thorough chemical examination of the fluids of the living and of the dead body, and, finally, the claims of the bacteriologist demand closest attention.

PHYSIOLOGICAL DIFFICULTIES AT THE CLARK UNIVERSITY.

From the *Worcester Gazette* we learn that the curators of the Clark University have encountered unforeseen difficulties in the way of obtaining physiological and other trained teachers from German universities. The curators had desired to secure certain young Germans, highly trained according to the modern methods, who would be willing for a limited number of years to teach at the new university, in the expectation that the way would be left open for these men to return to their home university without detriment to their future at the institution of their choice.

There was no paucity of such young professors who were willing to come to America temporarily to teach at Worcester and other places, but the governing powers at their universities, as a rule, declined to look favorably upon such temporary absences. They have declined to grant any such furloughs. A few of those German instructors may come over, but it will be virtual to an expatriation or exmatriation from their home institutions.

It would seem reasonable, from our American point of view, to expect that some German university would seize upon the opportunity as an opening for the extension of its influence, as if invited to establish a colonial graft of the higer methods of learning, but no, they are content in themselves, and have nothing to spare to others at a distance. It would seem as if the liberalizing tendencies of the present day had stopped short at the gates of the universities. But the American skirts are not clear, and it will not comport with the existing conditions of our statute books to proffer too much criticism. Our laws have not been so framed that we can promise the warmest kind of welcome to educators who may decide to come to our shores. For who can promise the latter that they will not have to run the gauntlet of the alien-labor contract law? It is a hard saying, but a fact, nevertheless, that here are two of the most advanced of modern nations, conspiring together, for differing ends of policy or politics, to put a stumbling-block in the way of the diffusion of an advanced education. These policies of government are wrong and cannot persist; for if there be no common ground between nations in a question of education, there should be no comity in any relation. Of all the people on the face of the globe who should have a free passport to come and go at their good pleasure, the scholarly teacher and the teachable scholar are the ones who should be favored. They, together with the scientific explorer, should be accorded the fullest international liberty and every degree of welcome. This experience of disappointment at the Clark University merits the profession's attention, for the reason that medicine has much to expect from the preparations that have there been made for the development of physiological and psychological studies to an extent that has not been reached at any other institution in this country.

In the interest of profound medical research, it is to be hoped that this disappointment of the curators will be only temporary.

THE RUSH MONUMENT.

Our readers will find in the present number of THE JOURNAL, under the head of "Domestic Correspondence," a letter from SECRETARY ATKINSON calling the attention of the Secretaries of the various medical societies in the United States to the Resolution adopted by the Association at its last annual meeting at Newport.

We sincerely hope that every society will regard that communication as a personal appeal, and that at once and everywhere efficient action will be taken to secure at an early day the accomplishment of the desired result. Let the officers of every medical organization interest themselves in this matter, and be sure that their individual work is well done.

Among the benefactors of mankind whose deeds are worthy of special remembrance there are none more conspicuous than are found in the medical profession, and among the names of medical men, there is no one which we more delight to honor than the name of BENJAMIN RUSH.

EDITORIAL NOTES.

HOME.

THE DETROIT ACADEMY OF MEDICINE.—The following were elected officers for the ensuing year at the annual meeting held last month: President, Dr. Henry A. Cleland; Vice-President, Dr. F. C. Heath; Secretary, Dr. Wm. B. Sprague; Treasurer, Dr. W. J. Cree.

THE PRICE OF QUININE has again fallen and, consequently, the large holders thereof are suffering from an attack closely approximating ague.

DR. D. D. RICHARDSON, of Philadelphia, has been elected Superintendent of the Diamond State Insane Asylum, Farnhurst, Del.

THE MEETING OF THE AMERICAN ACADEMY OF MEDICINE.—The annual meeting of this medical organization, of which Dr. Leartus Connor is President and Dr. R. J. Dunglison is Secretary, will convene in Chicago on November 13th and 14th. The academy is composed of men who have been graduated from literary colleges, and it has for one of its purposes the securing of like preliminary education by students previous to their entrance upon the study of medicine. From the well-known ability of its active members and the number of valuable papers to be presented, we may confidently anticipate a most interesting meeting.

DR. THOMAS A. DAVIE, surgeon for the Northern Pacific Railroad Company, died recently at Tacoma of typhoid fever.

CALIFORNIA STATE MEDICAL SOCIETY.—*The Pacific Medical Journal* says: It will be remembered that at the last meeting of the State Medical Society it was enacted that one qualification necessary for membership should be continuous membership in the regular local medical society. This action has been widely discussed and most favorably commented upon by the Eastern medical press. It is looked upon as a capital method for cementing the profession, binding together the various medical organizations and encouraging them to work in harmony and effectually.

WHAT WILL YOU DO?—The next three months afford a favorable opportunity to enlarge the subscription list of THE JOURNAL. It is within the power of each of our readers to secure one new subscriber. Every member of the American Medical Association is a stockholder in THE JOURNAL and, as such, should use every effort to increase its circulation and influence. To those who will get up clubs we will make special terms. Will each of our readers write us, sending a list of physicians to whom sample copies should be sent? Be in earnest in this matter. The larger subscription list we can obtain before the close of the year, the better Journal we can give you for 1890. What will *you* do?

SPECIAL NOTICE.—The American Academy of Medicine is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges in the United States and Canada, who have received the degree of M.D. All recipients of both degrees, literary and medical, are requested to forward their names at once to Dr. R. J. Dunglison, Secretary, 814 N. 16th street, Philadelphia, Pa.

THE AMERICAN RHINOLOGICAL ASSOCIATION closed its seventh annual session at Chicago last week. The new officers elected are; President, Dr. A. G. Hobbs, Atlanta, Ga.; First Vice-Presi-

dent, Dr. A. B. Thrasher, Cincinnati; Second Vice-President, Dr. E. R. Lewis, Indianapolis; Secretary and Treasurer, Dr. R. S. Knode, Omaha; Librarian, Dr. John North, Toledo; Member of Council, Dr. C. H. von Klein, Dayton, O.

FOREIGN.

THE great amphitheatre of the School of Medicine at Paris was destroyed by fire last week.

DR. LAUDER BRUNTON will pay a visit to India to test the results of the Hyderabad Chloroform Commission.

THE GERMAN DERMATOLOGICAL SOCIETY will hold its next annual meeting at Berlin in connection with the International Medical Congress.

DR. KARL FRANKEL will fill the new chair of Hygiene and Bacteriology in the University of Konigsberg.

QUEEN'S COLLEGE, BIRMINGHAM.—A new theatre has been recently fitted up for lectures on medicine, etc., the former medical school being now reserved for anatomy.

AN ANTI-VACCINATION CONGRESS was recently held in Paris. The President, M. Boeus, a Belgian, stated that small-pox is not so fatal as is believed, also that the use of candles, instead of gas or lamps, which give a strong light, prevents small-pox patients from being marked.

THE DEPOPULATION OF FRANCE is causing the French legislators a great deal of anxiety. A correspondent of the *British Medical Journal* suggests that it would be wise to move for a strict inquiry into French baby-farming, and adopt energetic measures to prevent the loss of infant life attending this system.

THE ADMISSION OF WOMEN TO THE BELFAST MEDICAL SCHOOL.—The *British Medical Journal* says: An application was recently made by three young ladies to the medical professors of the Queen's College, Belfast, to have the medical classes thrown open to women. The Arts classes of the College were opened to women some years ago with results in every way satisfactory, and we understand that the above application has been favorably entertained by the medical professors. The next question will be the opening to women of the medical practice of the various hospitals, especially the chief teaching institution in Belfast, the Royal Hospital. It is believed, however, that no difficulty is likely to arise on this side. Experience has shown that young men and young women can be taught conjointly at the bedside without inconvenience.

CHOLERA IN ASIATIC TURKEY.—Bagdad and Bussorah have, according to a correspondent of the London *Times*, been visited by an epidemic of cholera. The disease was first noticed in obscure inland spots, whence it spread to the port of Bussorah, near the head of the Gulf of Persia. From the first, the Ottoman Government left nothing undone in the way of quarantine to prevent it spreading up the Tigris, but all efforts proved unavailing. At Bagdad a severe outbreak has occurred, many dying daily; in the absence of systematic registration, it is impossible to say how many.

NATIVE WOMEN IN THE MEDICAL SCHOOLS OF INDIA.—The *Provincial Medical Journal* says: At the present moment there are some 200 *native* women studying medicine in the medical schools at Bombay, Calcutta, Lahore, Madras, Hyderabad and Agra, which is the last one to open a class to the sex. Some will take Indian University degrees, some will come here, or go to the Continental or the American schools, to carry their education as far as possible, though the majority will never proceed further with their studies than to be classified as "hospital assistants." At the outset of the movement it was difficult to find Indian girls sufficiently bold to break through the traditions of centuries, and come forward to adopt the profession; but now there is almost an *embarras du choix*, and rigid supervision is exercised in the selection of those only who are intellectually and physically equal to the training. The National Association now has eleven fully qualified lady doctors practicing in various parts, and of these five were trained in England and six in India. It now only permits ladies to designate themselves "doctors" if their education has been sufficient to permit them to be registered under the Medical Acts in force here, and gives to less highly qualified women the titles of "Female Assistant Surgeon," or "Female Hospital Assistant." It is pleasant testimony to hear that the strictly "unsectarian" scope of the National Association did not prevent ladies of the various medical and Zenana missions from giving it all the help and counsel in their power.

TOPICS OF THE WEEK.

THE LATE SESSION OF THE NEW YORK STATE MEDICAL ASSOCIATION.

Under the above heading we quote an editorial from the *Medical Record* of October 5, as follows :

The recent session of this Association was characterized by an exceptionally large attendance, and much manifest interest in the proceedings. The topics discussed made a home-like appeal to the general practitioner, whose zeal is in the direction of the "first care;" they were practical, well selected, exhaustive and scholarly. Many new men, destined to make their mark, surprised both themselves and others with the applause gained by their ambitious endeavors and the results of their work. There were some disappointments, owing to the failure of a rather crowded programme and the absence of certain advertised participants, but, on the whole, these drawbacks were more than compensated for by the eagerness of volunteers to fill the gaps, so that there was no real dearth of substantial material.

The set discussions on the collective-investigation plan, which seem to have come to grief across the ocean, were both satisfactory and successful. The themes selected, such as "Tubal Pregnancy," the "Treatment of Hernia," and the "New Hypnotics," were timely and well treated. We may say, in fact, that they were exceedingly well handled, and so far as the detailed questions were concerned, assigned to those who were able to speak by authority. There were very little crudities of thought or looseness of statement, but, on the contrary, much honesty of investigation, some skeptical interrogation, and a deal of logical candor.

Much as we have deplored the Code schism, we are fain to acknowledge that, when families become too large, the component individuals may gain in energy and benefaction by separating for the purpose of housekeeping on their own account ; at all events, in the present instance, sympathy appears to drift somewhat toward the young couple, especially when zeal and honest endeavor go hand in hand. Certainly, if the Association aim for influence and additions to our stock of knowledge, not only the profession but the public at large cannot fail to be benefited—the field is large, the harvest ripe, and the laborers none too many.

THE HISTORY OF ORTHOPEDIC SURGERY IN AMERICA.

From the very able and interesting address of the President, Dr. E. H. Bradford, delivered in Boston, September 17, 1889, at the third annual meeting of the American Orthopedic Association, and reported in the *Boston Medical and Surgical Journal*, we present the following :

The history of orthopedic surgery in America can never be thoroughly written, as the earlier facilities for presenting cases and recording methods were necessarily imperfect in a new country. The earlier American bibliography, prior to 1860, which, through the kindness of Dr. Billings, has been copied for me from the catalogue of the Army Medical Library, shows not only much that is of interest, but indicates by what is implied as much as by what is published, that much excellent work was done which escapes the annalist.

The first triumph in orthopedic surgery in America is the classical operation by Rhea Barton (*North American Medical and Surgical Journal*, 1827, p. 279), the founder of osteotomy for correction of deformity, as McDowell is the founder of ovariotomy.

Physick's Fixation Hip Splint, described in 1831 ; Chase's paper on the "Treatment of Club Foot Without Tenotomy" (*American Journal of Medical Sciences*), 1841 ; Mütter's work on "Club Foot" in 1845—all indicate the intelligent interest taken in the subject. Excision of the hip was first performed in this country by Dr. Wilcox, of Eastern Pennsylvania, as early as 1849.

The stimulus of Stromeyer's achievements was quickly felt in America, and tenotomies were done by Rogers (1834), Dickson (1835) and Detmold (1837). To the latter belongs the credit of the first published tenotomy, the tenotomies of the two former surgeons not having been recorded. Detmold also acted *ex cathedra*, as it were, for he was fresh from the teachings of Stromeyer. The interest taken by general surgeons of the time in orthopedic surgery is indicated by the remarks of Valentine Mott, as quoted by Mütter, of Philadelphia, and by the well-known work on "Orthopedic Surgery," by Dr. Henry J. Bigelow, published in 1845, and which to-day is a model of excellence, and one of the best of publications to illustrate the French school of orthopedic surgery, the dominant school of the time. . . . Speaking of the history of orthopedic surgery in New England he says :

Dr. Buckminster Brown has been kind enough to write for me the following outline of the history of orthopedic surgery in New England, which I quote in full :

"The history of orthopedic surgery in New England commenced in 1838, when Dr. John Ball Brown, of Boston, treated nine cases of spinal disease and curvature. Dr. Brown was for several years associate surgeon with Dr. John C. Warren, and afterwards consulting surgeon at the Massachusetts General Hospital. For some years previous to the above date he had given much attention to this class of complaints. In 1839 Dr. Brown received from Paris a copy of a publication of M. Bouvier, in which he describes the operation for the section of tendons in club foot devised by Delpech, together with the introduction by Stromeyer of subcutaneous tenotomy, his own (M. Bouvier's) modification of this method. He also received at the same time the apparatus employed in the after-treatment. Dr. Brown at once decided to perform this operation and to pursue the method of treatment described.

"On February 21, 1839, he did the operation on a little girl 4 or 5 years of age, who had talipes varus. The treatment was successful. So far as was known to Dr. Brown, this was the first time that subcutaneous tenotomy had been done in America. He afterwards learned it had been done once previously by Dr. Detmold, of New York. Dr. W. J. Little, of London, about this time published his first work on "Club Foot and Analogous

Distortions," and this was a great assistance to the American pioneer.

"The various French treatises on this and kindred subjects by Guerin, Bouvier, Chassignac and others were also welcome aid during the earlier years. He imported from Europe various instruments and drawings of apparatus, invented many and modified others.

"From the date above named Dr. Brown had an extensive experience in this branch of surgery, and his reputation spread widely. Patients, not only from the neighboring States, but from the South and from the West, and even from the Sandwich Islands, journeyed to Boston for the purpose of being placed under his care. In 1849 he opened, in a house hired for the purpose, a small hospital for the treatment of orthopedic cases. Dr. Brown continued in the practice of orthopedic surgery until his death, which occurred in 1862.

"Dr. Brown's treatment of talipes was essentially modelled on that of Little and Bouvier. In lateral curvature he adopted, to a certain extent, the course pursued by Jules Guerin, with modifications and improvements of his own; and in spinal caries fixation was the point aimed at.

"In 1846 Dr. Buckminster Brown returned from Europe, where he had followed the practice of Little, Stromeyer, Guerin and others. He immediately commenced practice in his profession, at first combining the orthopedic branch with general practice, and finally confining himself to the former. From this date to the present, he has from time to time published some of the results obtained from his practice and experience.

"In 1861 Dr. Buckminster Brown took charge of a ward in the Samaritan Hospital, for treatment of deformities."

The Children's Hospital in Boston, opened in 1866, though not an orthopedic institution, necessarily demanded treatment for cases of this sort, and has developed in this direction to such an extent that its orthopedic clinic may be said to be one of its most prominent features.

The increase of interest in this branch of surgery is marked in a practical way by the foundation of special hospitals. On May 1, 1863, the Hospital for Ruptured and Crippled, of New York, was opened by Dr. Knight, and is now one of the largest hospitals of its kind in existence. In 1866, an Orthopedic Dispensary was opened in New York, by Dr. C. F. Taylor. In 1873 it was enlarged into a hospital. Dr. C. F. Taylor was appointed consulting physician, in 1868, to St. Luke's Hospital, and in 1872, Dr. Shaffer was appointed visiting consulting surgeon there. The interest in the treatment of deformities by Dr. J. K. Mitchell, of Philadelphia, was active, and led to the establishment of an orthopedic hospital in that city.

LOCAL MEDICAL SOCIETIES.

We transcribe from the *Atlanta Medical and Surgical Journal* for October the following editorial:

With the advent of cooler weather, the time has arrived when medical societies all over the land are buckling on the armor and preparing for their winter's work. The hot months, relaxing alike to the mental and physical energies, have caused a cessation of society work for a time. But now that the profession is settling down once more to its regular labors, the demands of the local medical societies upon the recognition and attention of the medical man should not pass unheeded. It is to be regretted that the advantages of such associations for united professional work are not more fully recognized, or if recognized, that such recognition is not more universally translated into practice. That medical societies are the most potent instrumentalities for the advancement of medical science is a fact that cannot be gainsaid by any observant man. A moment's thought will convince any one that the best results that are obtained in this direction are almost invariably wrought out under the stimulating influence of the contact of mind with mind. The practitioner is thereby lifted out of the ruts into which every one is so liable to fall when working by himself alone, and he learns that there are other works of practice and other lines of thought outside of those to which he has become accustomed. The tendency of society work is to broaden a man's views of medical matters, to enlarge his field of vision, and thereby to make his daily practice more satisfactory to himself and more beneficial to his patients.

These are facts which are too patent to admit of argument. Yet there are many men of good standing in the profession who are never seen in the medical society. Why this should be so it is difficult to understand. It is true that the arduous duties of a large practice leave but little leisure for anything else; yet the men who have large practices are the very ones who will derive the most benefit to themselves by occasionally stepping aside from the practical application of their wide experience to compare their views with those of other men, and to avoid thereby the tendency to routine which is inseparable from unremitting professional toil. Moreover, the social element which always enters to a greater or lesser extent into all societies is promotive of a friendly professional feeling and a proper *esprit de corps*, which is apt to drop out of sight altogether when every man is working on his own independent schedule.

To the younger portion of the profession the value of the medical society cannot be overestimated. There he has the opportunity to avail himself of the experience of older and wiser men and to learn lessons in practice which cannot be learned from the generalizations of his text-books. Next to actual individual experience there is no school so valuable to the young practitioner as the medical society.

We would therefore urge upon our readers the desirability of the formation and support of organizations of this kind. In thinly settled districts two or more counties might advantageously unite and hold monthly meetings at some accessible point. In the cities and larger towns where societies already exist we would urge a more general membership and a more frequent attendance of meetings. The result of such a course would soon be felt in an elevation of the tone of the profession, a promotion of scientific and accurate medical knowledge, and a better ethical spirit everywhere. Petty jealousies and animosities would disappear, knowledge of medical science would be promoted, and the profession would be brought nearer to that plane which we all recognize as alone worthy of a noble and lofty calling.

PRACTICAL NOTES.

SALICYLIC ACID IN MALIGNANT SCARLATINA.

DR. SHAKOWSKI has administered salicylic acid with the greatest success in 125 cases of grave scarlatina occurring in children, the mortality being reduced to 3½ per cent. Ordinarily his method of administration was in the form of a mixture consisting of one part of salicylic acid to seventy-five parts of water and thirty parts of syrup of orange peel, a teaspoonful of this being given every hour during the day and every two hours during the night. He writes that under the influence of this remedy the temperature is rapidly reduced, in certain cases, even at the end of forty-eight hours, the temperature falling four degrees. Habitually all traces of fever disappear after the tenth day of the disease. Nevertheless, the author advises to prolong the treatment for some time longer than this in progressively decreasing doses, so as to avoid any danger of relapse. Through the use of this remedy the author believes that he has avoided the most serious complications of scarlatina, such as uræmia, anasarca and diphtheria. He claims that this medication will only be ineffectual when given too late—that is, after the fourth day of the disease, or when there exists some grave chronic complication.—*Revue mensuel des Mal de l' Enfance.*—*The Therapeutic Analyst.*

SOME OF THE NEW SKIN REMEDIES.

BULKLEY stated in his address as chairman of the Section on Dermatology, at the Newport meeting, that resorcin and ichthyol have not fulfilled the expectations incited by Anno. They are not indifferent, but their use is restricted. The thorough and continuous use of a zinc ointment, containing 20 grs. each of salicylic acid and ichthyol, produces excellent results in infantile eczema. Resorcin is a parasiticide, useful in ringworm, seborrhœic eczema and psoriasis. It is useful in acne (5 per cent. in alcohol and water) to check the oily secretions. Too much is irritating and discolors the epidermis.

Lanolin has but limited uses also. It will not do alone as a basis for ointments; 25 per cent., with other fats, keeps the skin soft and pliable. It has been pushed by the trade, but is little used by dermatologists.

The New York Dermatological Society has taken strong action against making vaseline, cosmoline, etc., the basis of ointments in the coming revision of the Pharmacopœia. They are good for lubricants in scaly skin troubles, and to carry carbolic acid as an antipruritic. Even albolene is too soft for a protective, and Hebra's diachylon ointment is still at the head. Bulkley prefers the unguentum aquæ rosæ—almond oil, spermaceti, white wax and water—to all others in compounding prescriptions.

Salicylic acid maintains its reputation, and has come to stay; 3 per cent. in hair tonics where there is an oily scalp; 10 to 20 per cent. in alcohol and water as an efficient parasiticide; a drachm each of oxide of zinc and salicylic acid to the oz. of starch, in checking excessive perspiration of the axilla and feet; these are among the uses of salicylic acid.

Anthrarobin, in a 10 per cent. ointment, has a marked effect upon psoriasis, without producing inflammation or staining as much as chrysarobin. Alkali baths increase its action.

Ten per cent. naphthol ointment has an increasing reputation in scabies; menthol, in 5 to 15 per cent., with a little alcohol and glycerin, is a most serviceable antipruritic, and takes away the pain of epilation; campho phenique, 1 drachm to the oz. of vaseline, often gives complete rest to an intolerable itching.—*Indiana Medical Journal.*

A SIMPLE METHOD OF TREATING UMBILICAL HERNIA IN INFANTS.

DR. WALTER CHRYSTIE, Physician to the Children's Dispensary, University Hospital, writes to the *Medical News:*

If the treatment of umbilical hernia in the earlier weeks of infant life has proved as troublesome and annoying to others as to the writer, this description of a simple and effective method of treatment will not be out of place.

Agnew and others use a button of cork covered with chamois skin, and held in place by a broad strap of porous or rubber adhesive plaster encircling the trunk. Elastic bands, pads fastened to the binder, hard rubber spring trusses, and various more complicated devices are also recommended. Most of these methods I have used, all with discomfort to the child and unsatisfactory results. Porous plaster invariably irritates the skin, as does rubber adhesive plaster, and their removal causes a paroxysm of crying when the consequent straining is most undesirable. All absorbent pads become malodorous from retained perspiration, and are constantly moist from the daily baths. Bands extending around the waist interfere with respiration, peristalsis, and the development of the abdominal and lumbar muscles. Elastic bands are by far the worst in this respect. Pads fastened to the binder are constantly slipping out of place. The same may be said of trusses, which have the additional disadvantage of hurting a child that is not handled carefully.

An apparatus for successful treatment should be non absorbent, non-irritating, and of such material that it will remain in place for at least a week, notwithstanding daily bathing. It should not interfere with peristalsis, respiration or development, and must be free from the possibility of

hurting a carelessly handled child. Such requisites are combined in the following device, which differs slightly, but in important particulars, from others.

It consists of a hard-rubber, slightly oval, plano-convex lens, with a greater diameter of 3 cm. and thickness of 6 or 7 mm.; on the plane surface are two small wire loops facing each other at a distance of 2 cm. This is attached to the center of an adhesive plaster strap, 2 cm. wide, and long enough to embrace three-fourths of the child's body, by thrusting the wire loop through the plaster and a small safety-pin through the loop. No plaster other than a reliable emplast. resin. of the Pharmacopœia should be used. In using, the hernia is reduced by the pressure of the button, and the warmed plaster quickly applied while the child is quiet. This will retain its position for from one to three weeks, unless considerable soap is used in the bath. When removal is desired, a few moments' soaking with soap and water will loosen it unnoticed by the child. If redness of the skin is produced, the cause will be found in the adulteration of the plaster with turpentine or Burgundy pitch.

WHITE LEAD IN THE TREATMENT OF ERYSIPELAS.

(By E. STUVER, M.S., M.D., of Rawlins, W. T.)—During the last four or five years I have treated a number of cases of erysipelas with ordinary white lead ground in oil, thinned to a proper consistency with Japan dryer, and so prompt and efficient has been its action that I desire to call attention to its merits.

I have tried quite a number of the most highly lauded remedies, including the combination of sulphichthyolate of ammonium and lanolin, which is claimed by many to be a specific in this disease, but in my hands white lead paint has exerted a more favorable influence than anything else. It very promptly relieves the burning pain and feeling of tension which are so marked in severe cases; it limits the spread of the disease process, and forms an impermeable covering over the affected parts, thereby preventing the dissemination of diseased particles. If this disease, as is now generally admitted, be caused by pathogenic microörganisms, this power of the treatment to limit the spread of the disease germs should lead to its more general adoption.—*Medical News.*

THE INCUBATION PERIOD IN INFECTIOUS DISEASES.

DR. JAMES FINLAYSON (*Glasgow Medical Journal*, May, 1889), in preparing a code for the regulation of the school attendance of children exposed to or affected by infectious diseases, found that there was a decided diversity of opinion among authorities as to duration of the incubation period and as to the time of quarantine for children that had been exposed. The incubation period in scarlet fever is given as low as 1 day and as high as 14 days, with an average duration of quarantine from 10 to 14 days; measles, from 3 to 17 days—quarantine 16 days; rötheln, from 4 to 21 days—quarantine from 16 to 21 days; mumps, from 4 to 24 days—quarantine from 21 to 24 days; whooping-cough, from 4 to 14 days—quarantine from 16 to 21 days; chicken-pox, from 2 to 18 days—quarantine from 18 to 21 days; small-pox, 5 to 19 days—quarantine 16 to 18 days; diphtheria, 1 to 14 days—quarantine 10 to 12 days; enteric fever, 1 to 30 days—quarantine 28 days; typhus fever, 1 to 21 days—quarantine 21 to 28 days; erysipelas, 1 to 13 days—quarantine 10 days. As in the United States local ordinances involving this question require the physician to furnish a certificate to the child, the periods of quarantine above given may serve as precedents.—*New York Medical Journal.*

TO STERILIZE MILK.

It is not necessary (*Dietetic Gaz.*) to invest in a sterilizing apparatus, as any housekeeper can arrange one equally efficient for herself. All that is necessary is to have some bottles, capable of containing the milk to be used in a day; each large enough to contain what will be needed at one time. These bottles and their corks should be thoroughly cleansed by boiling in a solution of washing soda. The corks should be selected, and of the best variety. When the milk is brought to the house it should be placed in these bottles, which should be arranged on a wire frame in a pot of water, and boiled for fifteen minutes. They should then be corked securely and placed in the refrigerator with the ice *upon* them, not under them. In the country they may be lowered into the well. Milk thus treated will not only keep sweet and fresh, but almost any impurity it may originally contain will be rendered innocuous. The flavor of boiled milk is unpleasant to many persons; but this may be remedied by the addition of a little coffee or cocoa. At any rate one must not expect too much in this world, and for the sake of safety put up with the unpleasant taste, or learn to like it.—*The Canada Lancet.*

CASTOR OIL AS A MENSTRUUM FOR COCAINE.

DR. S. MITCHELL writes in the New York *Medical Record* of the happy results following the use of castor oil as a solvent for cocaine. A patient had been attacked with herpes zoster, the eye being much affected. Great pain was felt from the hard cicatrix resulting from the healing of a vesicle. Castor oil was applied as a lubricant, and the doctor then conceived the idea of adding cocaine. A 5 per cent. solution was used, by which the pain was relieved. Recovery was rapid—*Druggists' Circular.*

SOCIETY PROCEEDINGS.

Medical Society of Virginia.

(*Concluded from page 539.*)

DR. I. S. STONE, of Lincoln, read a paper giving an account of

SOME GYNECOLOGICAL WORK OF THE PAST YEAR.

The author stated that his cases were treated in his private sanatorium, where they could have good surroundings, nursing, etc. Four cases of abdominal section for tumor of the peritoneum with cancer of transverse colon, salpingitis, chronic peritonitis following salpingitis, and one Battey's operation, were respectively reported. The specimens shown (three in number) were characteristic of the disease in question. Other cases of lacerated cervix and perineum were alluded to briefly but not separately reported. The author still advocates Emmet's operation for lacerated cervix, but says he does not so frequently perform it as before. One case of modified hysterorrhaphy was mentioned in which Alexander's operation was done on the left side and a partial hysterorrhaphy on the other. It was ascertained that many minor disorders, not surgical, were to be successfully treated by massage, electricity and overfeeding known as the Weir-Mitchell method. The author has had several years of experience in treating these cases, and justly claims that a very large percentum of cases come under this heading. Electricity was not spoken of at length, but enough was said to show some skepticism in regard to its value in all save in nerve complications.

DR. JOHN W. SCOTT, of Gordonsville, Va., was the reporter on

PRACTICE OF MEDICINE.

After reviewing much of the germ theory as causative of a number of diseases, he concludes that we must look to local sanitary improvements rather than to quarantine alone for the prevention of epidemics, such as Asiatic cholera, yellow fever, etc. Gibier maintains that the bacillus of yellow fever closely resembles that of cholera. During the year ending May 1, 1889, Pasteur treated 1,673 persons bitten presumably by rabid dogs, and lost only three by hydrophobia after the conclusion of the treatment; six died during treatment, and four developed the disease a fortnight after leaving the institution. The microbe of typhoid fever is the bacillus of Eberth and Gaffky. It is of tenacious vitality, and may live for months in decomposing fæcal matter, increasing in numbers at a temperature of 62.5° F. Drs. Kalb and Bartlett claim (*Brit. Med. Jour.*, Jan. 5, 1889) what is next to an abortive treatment of typhoid fever by mercurial inunction. This treatment must be commenced before the ninth or tenth day. Cold baths are being again advocated. Ehrlich's diagnostic sign of enteric fever—reaction in the urine with one of the aniline derivatives—has been verified by Dr. Taylor (*Lancet*, May 4, 1889). Tuberculosis is a specific infectious disease, the constitutional manifestations of which are secondary to the bacilli, and due to toxic influences evolved during their increase of growth and number. The number of the bacilli in the sputa bears no relation to the progress of the disease. The dry sputa is chiefly concerned in the propagation of the disease. The disease can be transmitted only through the medium of Koch's bacillus. It is not in the ordinary sense hereditary. The presence of the bacillus in the sputa is of positive value, but not of negative value in diagnosis. A rational prophylaxis is practicable, and we must still look more to prevention than to cure of tuberculosis, as no non-injurious antiseptic has yet been brought forth successfully. The infectiousness of scarlet fever suddenly decreases about the sixth day and increases again about the twelfth, reaching its maximum by the sixteenth. The telluric origin of tetanus is gaining advocates. The disease may be produced by inoculation with earth which has recently been in contact with organic matter. The treatment of locomotor ataxia by suspension is approved, but with the injunction to be cautious in watching the effect on the patient during the operation of suspension itself. No case of Pott's paralysis ought to be regarded as desperate until after failure of suspension. Weil's disease is due to septic poisoning, and hence it is proposed to call it septic or infectious icterus. Dr. Scott's observations on the treatment of whooping cough by inhalations of the oil of eucalyptus, is beneficial in shortening the length and in ameliorating the severity of the paroxysms, and in prolonging the intervals between the spells. His method was to pour from one to two drachms of the oil on sponges, and suspend several of them during the day from convenient places in the room; at night, from the head of the bed, so as to let the oil be constantly inhaled. A number of abuses of hygienic rules were mentioned, in the hope of getting practitioners to properly instruct their patients with regard to them, such as the common errors in our schools, the aversion of wives to becoming mothers, etc.

DR. A. JACOBI, of New York, read a paper on

ENTERALGIA AND CHRONIC PERITONITIS.

Enteralgia is always an irritation of a branch or branches of the sympathetic nerve. Its cause lies in the nerve or the intestinal tissues or its contents. Hysteria, hypochondria, malaria, gout, poisons, etc., may start the disease; or the pain may be reflected from spinal, liver, genito urinary or skin disease, sudden chilling of the skin being a frequent cause. The pathological changes are

congestion or inflammation, with their results. Acid food, certain drastics, hard scybalæ, fermenting foods, etc., are the common causes of enteralgia. The attacks are indefinite in length or suddenness. The temperature is rarely raised; the pulse is irregular; the skin becomes cold and clammy; sometimes dysuria, nausea, vomiting, constipation or diarrhœa occur. The tumidity of the abdomen changes its place under palpation, etc. Priapism and seminal discharges may occur with spastic rise of the testicles.

A common cause of enteralgia, often overlooked, is chronic peritonitis of secondary nature. New abdominal formations, peritoneal adhesions, swelled pelvic glands, etc., point to previous peritonitis. Floating kidney may start peritonitis, and thus become fixed in its dislocated position. Vertebral disease, psoas and iliac abscesses, hip-joint abscess, etc., may cause chronic peritonitis, oftentimes not recognized except post-mortem. Catarrhal "female diseases" are frequent causes, as are violent cohabitation, the puerperal state, etc. Biliary calculi, perinephritis, splenic and pancreatic diseases, infantile intussusception, a preceding attack of peritonitis, etc., are also causes. Simple intestinal catarrh grows speedily into enteritis. Peritonitis is likewise communicated to the muscular and mucous tissues, and thus extends the œdematous infiltration, paralysis, and hence constipation. Thus also diarrhœa, intestinal ulceration, without perforation, may cause local peritonitis. Diagnosis of chronic peritonitis is not always easy. Respiration need not be accelerated in pelvic peritonitis, perimetritis and pericystitis. Vomiting is sometimes wanting; diarrhœa is not infrequent, but constipation is the rule; the abdomen may be tumid, and the horizontal position is often uncomfortable. The seat of inflammation or adhesion may sometimes be told by placing the patient on his back, extend and then flex the extremities, and then use pressure, soft hard, sudden and gradual. Often, however, it is best to make deep pressure; if no pain, relieve the pressure suddenly; when localized pain may be felt. Change of position of the bowels may arouse pain; sharp pain, after full meal, may point to adhesions of the stomach; if pain occur three or four hours after eating, look for chronic colitis; if after quickened inspiration, then peri-hepatitis, etc. Variability of pain depends on degree of irritation or congestion. Extensive pelvic peritonitis may not give pain except when waked up by defecation, cohabitation, micturition, etc. In peri-cystitis, when urine is about half voided, and the bladder begins to contract, more efficiently, a localized pain above the pubes, increased by pressure, develops much resembling the spasmodic pain of vesical catarrh. Flatulence, etc., develop enteralgia in chronic peritonitis. Stenosis of the bowel, twisting, adhesions, etc., result, thus interfering with the intestinal functions. In short, the sequelæ of chronic peritonitis are very various. The indications of treatment of enteralgia of chronic peritonitis are determined by its results and symptoms, such as intestinal sluggishness, adhesions, etc. Subacute and acute peritonitis require absolute rest, support for the knees, ice or hot applications according to circumstances, opiates, etc. Some are now recommending large doses of magnesia sulphate and turpentine enemata; but a treatment under which an occasional patient may escape death must not supersede one which has proven to be successful in most cases, and beneficial in all. Localized attacks, mainly in the right hypochondrium, demand local applications; a few leeches occasionally and morphia subcutaneously may be required. Old adhesions, etc., are not amenable to medicines. Great physical exertion, pressure on abdomen, etc., must be avoided. Keep bowels regular. Wear a snug bandage over the whole abdomen for years after the last complaint of pain. Generally this bandage, held down by a perineal band, gives immediate relief. Without the immobility given by it to the sore intestine, he does not expect a case of chronic peritonitis to do well.

DR. JOHN RIDLON, of New York, read a paper on

SOME PRACTICAL POINTS IN THE TREATMENT OF HIP DISEASE, WITH SPECIAL REFERENCE TO THE USE OF THOMAS' SPLINT.

Only the mechanical treatment of hip disease was considered, and that from the points of most interest to the general practitioner of medicine and surgery. The difficulties of obtaining, applying and satisfactorily caring for any of the forms of traction apparatus were pointed out. Plaster of Paris, when applied from ankle to axilla, was considered as a comfortable and satisfactory dressing, but not easy to apply to many cases. Traction in bed by the ordinary Buck's extension and weight and pulley was not to be used except as a temporary expedient. On the other hand, traction after the manner of Howard Marsh was very useful in those cases where traction was indicated, and rest in bed not contra-indicated. Thomas' splint would prove of great service to those who were satisfied to treat tubercular joint disease in any part of its course without traction, to those who were so circumstanced that they could not use traction in their walking cases, and to those who believe that immobilization, and not traction, is chiefly indicated in the management of these cases. The splint can be made by any blacksmith and harness maker, and should not cost more than $2.50. Splints, pattens and wrenches were shown, and their construction, application and management explained. It was urged that the splint should not be considered as essentially a walking splint, but that

it was of more service while the patient was still confined to the recumbent position. With it the patients are not necessarily confined to bed as is the case when Marsh's method is employed. When the involuntary muscular spasm has subsided, patients are allowed to go about on crutches and a high patten. When the disease is believed to be cured, the crutches and patten are dispensed with; after a few months the splint is shortened up so as to allow of motion at the knee, and thus worn for a few months longer.

Dr. Joseph A. White, of Richmond, Va., presented the

REPORT ON ADVANCES IN OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

He stated that there had been no brilliant discovery and no new field of research opened up in this line of work, while much had been done in a quiet way to advance the diagnosis and treatment of these special diseases. In ophthalmology, the discussion on *iridectomy in cataract extraction* would fill volumes—the tendency of most writings being a return to the "simple extraction." In the opinion of the reporter, both simple extraction and extraction with an iridectomy have their application, and a surgeon cannot confine himself to either. The after-treatment has also been modified, and some writers even go so far as to dispense with the commonest rules of conservative surgery, allowing the person operated on to walk about as usual, with the unprotected eye open and the other closed by a piece of plaster. The reporter thought prudence would suggest the same rest, quiet and surgical precautions against failure, as in other surgical procedures. In *detached retina*, Prof. Schoeler, of Berlin, has reported cures from injections of tincture of iodine, into the vitreous and sac, but as yet, no method of treatment has proved satisfactory. *Transplantation of the cornea* has been an experimental operation only, and with the exception of one case of Von Hiepel's, which was a partial success, all the attempts have proved failures, and even the so called successful ones. In defects of the ocular muscles, with or without refractive errors, headache, eyeache, etc., can be relieved by proper adjustment of the muscular action of the two eyes by prisms or anatomy. Dr. George Stevens, of New York, ascribes all kinds of reflex nervous disturbances, such as chorea, epilepsy, mental aberration, etc., as well as sick headache, neuralgia, etc., to the nerve irritation, resulting from imperfectly acting ocular muscles, and reports numerous cases of cures by the operative correction of the defect. Time will demonstrate the value of this view in regard to epilepsy, mental trouble, etc., but the reporter thinks there is no doubt of their correctness in regard to headache, eyeache, etc., as he has had extremely favorable results in such cases by following Dr. Steven's method of tenotomy, resection of the recti muscles for their relief. Dr. Stevens in the past year has presented an instrument called a phorometer, which simplifies the determination of muscular defects, and is valuable in the saving of time and in producing greater accuracy. In his own experience the reporter finds that the modified tenotomy of a contracted tendon and resection of its antagonist gives better results in strabismus than the ordinary method of complete tenotomy, giving more perfect motion and a better chance for fine ocular vision.

In otology and laryngology, there is little to report, beyond noticing the facts that the dependency of aural diseases upon nasal troubles is becoming more generally recognized, and that the treatment of nasal diseases is becoming more strictly surgical—so-called catarrh being radically relieved only by surgical measures and not by local applications, which are only useful for cleansing and antisepsis.

PRIMARY IRITIS—ITS DIAGNOSIS AND TREATMENT,

was the title of a paper read by Dr. J. Herbert Claiborne, Jr., of New York. After an anatomical description of the iris and contiguous parts, he remarked that it was important to remember that in a condition of health, the edge of the pupil rested on the anterior surface of the lens in moderate dilatation. The diagnosis was to be made by the signs rather than the symptoms of the disease. The chief signs were pericorneal redness, steamy cornea, clouded aqueous, discolored iris, small pupil, irregular and puckered edges of the pupil, etc. Tenderness on pressure in the ciliary region was the symptom indicating a high stage of ciliary congestion, but not necessarily of cyclitis. Treatment was comprised under the great "therapeutic trilogy," local depletion, dilatation of the pupil, and systemic treatment. Local depletion was best obtained by that leech that takes deepest hold, sucks the longest and draws most blood. Bleeding should be encouraged by hot applications to the bites. The position for the leeches was in the temporal fossa, in a horizontal line with the outer canthus of the eye, to drain the temporomalar branches of the lachrymal arteries. He preferred to combine cocaine with mydriatics on account of the greater mydriatic power of such combination, and the analgesic effect of cocaine. He preferred duboisin (1 per cent.) combined with cocaine (6 per cent.). With regard to systemic medication, he uses blue ointment, salicylate of soda, iodide of potassium, the iodide combined with bichloride or the biniodide of mercury, antipyrin and Russian or Turkish baths, and quinine for its general tonic effect. He laid much stress on the value of salicylate of soda, especially in rheumatic iritis. It was also of great

value in the specific forms of the disease, as assisting the action of the other agents. There is no need of opium or morphia in iritis. If the pupil could be dilated, pain would cease; if it could not be antipyrin was a good substitute for morphia. Too much stress could not be laid on the importance of the early treatment of iritis with regard to preserving the sight. The responsibility of treatment rests on him who sees the case first.

DR. LEWIS G. PEDIGO, of Roanoke, reported on

ADVANCES IN NEUROLOGY AND PSYCHOLOGY.

He regarded the development of the suspension treatment of locomotor ataxia as the most important step of progress in neurology in the past twelve months, and devoted considerable time to the consideration of this subject. Other items of progress in neurology were reviewed; the problems of asylum management and general care and treatment of the insane received due attention. A brief allusion was made to Stephen Smith's project of a law for commitment and detention of the insane. The present status of various questions of medical jurisprudence was presented at length. The latter part of the paper was devoted to hypnotism and allied phenomena. This part of the paper was illustrated by actual experiments before the society on a subject who, the doctor claims, is one of the very best and, in some respects, most remarkable hypnotic subjects in the world. He succeeded, by his own modification of the Bernheim and Charcot methods, in throwing this subject into the hypnotic trance in about one-third the time required by Bernheim to hypnotize his very best subjects. La Petite Hypnose and La Grand Hypnose (in its three stages), as delineated by Charcot in Salpêtrière, were demonstrated in clear and rapid succession.

A paper by DR. E. M. MAGRUDER, of Charlottesville, Va., was presented, reporting two cases of

NEURECTOMY FOR FACIAL NEURALGIA, WITH RECOVERY.

His first case was a gentleman, aged 71, who had the persistent neuralgia for fourteen years that no medicine cured, although he had consulted eminent specialists. Seven drops of fluid extract of gelsemium every three hours gave greater relief than any other medicine, except morphia; but all medicines failing, the patient was chloroformed, and with strict antisepsis an incision was begun below the lower orbital margin, over the infra-obital foramen straight downwards, parallel with the nose, towards the lip and ending on a level with the lower border of the alænasi—about an inch incision. The fascia and fibres of the levator labii superioris were torn through with the handle of the scalpel and the nerve exposed at its exit, where it divided into its branches. Each branch, the palpebral, the nasal and the labial, spreading into a fan shape as it neared its destination, was dissected out as far as it could be followed without mutilating the face too much. The main trunk was then seized with forceps at the foramen, drawn out as far as possible without breaking it, and cut off close to the bone, after which the various branches were divided at their farthest point of dissection. The wound was closed with fine silk sutures. There was at first considerable paralysis of the side of the face and loss of sensation, but these disappeared except from the right half of the upper lip, which is still without motion or sensation. There has been no recurrence of the neuralgia. The patient feels like a new man.

Case 2 was a lady, age 58, who has had facial neuralgia for ten years. At first it was confined to the left lower jaw, never passing the middle line of the chin, but afterwards extended to the left external ear, temple and side of the head above and behind the ear (auriculo-temporal) to the left side of the tongue (gustatory), and then to the left side of the floor of the mouth (mylo-hyoid). The diagnosis was neuralgia of the inferior dental nerve, with reflex and sympathetic phenomena exhibited by the auriculo-temporal, gustatory and mylo-hyoid nerves. As to treatment, teeth had been extracted, analgesics had been used, etc., and finally total neurectomy of the inferior dental nerve, including its branches, was done with cure. In the operation avoid injury of the facial artery and Steno's duct. Entering the scalpel just in front of the posterior border of the ramus, just below the parotid duct and lobe of the ear, a curvilinear incision was made downwards, half an inch in front of the inferior maxillary angle, then forwards a little above the lower border of the ramus, and upwards just behind, and avoiding the facial artery, stopping short of the line of Steno's duct above. The flap thus shaped was raised by shaving the masseter muscle from its attachment to the outer surface of the ramus and the bone laid bare. With a half inch trephine he cut out a button of the bone from the center of the outer plate of the ramus, exposing the nerve in its bony canal. Seizing the proximal end of the nerve with forceps, strong traction was made from the direction of its origin. It was then cut off with scissors close to the bone as it entered the circular cavity made by the trephine. Then, the wound being stuffed with moist antiseptic cotton and the hæmorrhage stopped with pressure, a second incision was made, an inch long, horizontal in direction, over the mental foramen (below the root of the second bicuspid tooth), beneath the depressor anguli oris, disclosing the mental nerve and its branches beneath the last named muscle. The nerve was grasped with forceps and pulled upon, but broke off at its point of exit. The branches were then dissected out and cut off as far as possible from

the foramen. Then returning to the first wound over the ramus, and chiselling away the wall of the dental canal, or one-eighth inch from the circular cavity in the ramus, so as to expose this end of the nerve, which had been divided by the distal side of the trephine, it was drawn out of the dental canal with forceps in its entire length from the ramus to the mental foramen. In all, 3⅜ inches of nerve structure were removed. The wounds were closed and the patient was perfectly relieved without any return of neuralgia since. The paralysis of the left side of the face disappeared in about two weeks.

The lesson learned is: In all operations for facial neuralgia remove as much of the troublesome nerve and its branches as the anatomical formation of the parts will possibly allow without rendering the procedure too grave.

Dr. C. R. Cullen, of Waldo, Fla., read a paper on

RAILROAD INJURIES.

He reported eight cases of railroad accidents. He urged that doctors not engaged in the service of railroads insist upon the same compensation, when they are called upon for such service, that is received by doctors engaged in the railroad service.

Dr. Hugh Blair, of Richmond, Va., read a paper on

DIAGNOSIS BY MEANS OF URINARY ANALYSIS.

Harley says the state of the urine is a key to the condition of the body. While some diseases may not affect the urine, morbid urine indicates disease. *Renal inadequacy* (notable absence of urea and other solids), due to want of the necessary nerve influence, is shown by the low specific gravity of the urine, other causes being excluded. In overworked nervous systems, excess of alkaline phosphates in the urine occurs. Probably the nervous system is fed with phosphorus to licithin. The best way of supplying phosphorus to licithin is to give hypophosphites. If indigestion and improper metabolism occurs, deleterious matters accumulate in the blood; if of nitrogenous character, the kidneys excrete them, if they are able. Destructive metamorphosis of albuminoids in the liver forms urea. Uric acid crystals, easily recognized by the microscope, appear in the urine in some functional hepatic disorders and lesions, causing gout, chronic nephritis, renal calculi, etc. If the crystals do not appear, excess of urates, acid urine, with high specific gravity, are present. *Lithæmia* (uric acid in the blood) is a chronic condition of the overworked and over-anxious, is not so serious as gout, but is ever active in causing obscure and distressing symptoms. It points to chronic functional disturbance of the portal circulation, and is recognized by the high specific gravity of the urine, its acidity, excess of lithates and phosphates, and often oxalate of lime crystals, and especially pigments in the urine. It gives a peculiar change in color to the urine during Pary's copper test for sugar. *Diabetes* indicates grave systemic disease; but it should be differentiated from hydruria and polyuria. *Icteric urine* stains white cloth yellow, but its diagnostic value is not of practical use. In short, the value of urinalysis extends to every disease characterized by pathological urine, as the Bright's disease, pyelitis, cystitis, etc. Numerous urinalyses made by him for physicians had enabled the practitioner to determine their diagnoses and oftentimes save the lives of patients.

Dr. A. F. Kerr, of Williamsville, Va., reported a case of

EXTERNAL GLANDERS, OR FARCY IN MAN.

The rarity of the disease, especially in mountainous regions justified, he thought, a note or two about the case. Glanders is an infectious disease, principally of domesticated equine animals, and communicated to other animals, and to man by inoculation of the glanders bacillus. It originates in solipeds, although it has been known to originate in cloven footed animals. Having originated, infection occurs only for a short distance through the atmosphere, or the disease may be communicated through the ingestion of infected matter, or through the seminal secretions to the female in coitus, etc. In man, the chief source of infection is the horse—it being rarely communicated from man to man. The point of attack is usually an abrasion upon the skin or mucous membrane. The incubative period is from one to four days in inoculated cases. The wound becomes tense, swollen, painful, with a dark or yellowish erysipelatous redness, and the edges become puffy and everted. A sanious matter issues, and the surrounding lymphatics become swollen and red, and the glands become enlarged and tender. Constitutional disorder acts in a few days—languor, extreme weakness and prostration, with aching in the limbs and head, rigors alternating with fever, or a continued fever after the first violent chill; sometimes there is nausea and vomiting, and even diarrhœa. When not due to external inoculation, the febrile symptoms appear first, and then the other conditions, which have been noted first in the description of cases due to external inoculation. The phlegmonous swellings along the lymphatics become abscesses, and discharge small quantities of a thick slimy pus. The resulting sores become ulcerous with grayish base. Temperature rises perhaps to 104°.

His case was a young healthy man in 1886. He contracted glanders from treating a mare supposed to have "greased heel" or "scratches." He first noticed a painful swelling on the point of the second finger of the left hand, which had

been slightly cut with a pen knife. The swelling was yellowish, edges of wound everted and puffy, and discharged a thin sanious material; the surrounding lymphatics became enlarged and all the fulness of the history of glanders in man was complete. Treatment began with a brisk purge, followed by quinia and muriated tincture of iron, and an exclusive milk diet. The swellings on the forearm were freely laid open and cauterized with nitrate of silver, all diseased tissues removed, and the resulting sores packed with iodoform, over which was laid medicated jute. Subsequent washings were made with carbolized water. Recovery was prompt.

DR. W. W. PARKER, of Richmond, Va., read a paper on

A FEW ORIGINAL OBSERVATIONS ON BLOOD GRAVITATION IN HEALTH AND DISEASE.

of which the following is a synopsis:

1. The first wound ever inflicted upon the human body was probably upon one of the extremities, and the relief following the elevation of the wounded member was the first illustration of blood gravitation in disease. 2. A case reported of the wonderful curative power of elevating the leg at 80°, of a boy struck in the tibia by a base-ball. 3. A singular case of death from the application of a mustard-plaster to the ankle, being an exception to the rule, yet establishing it. 4. The gravitation of blood in the stomach made useful in preventing emesis in certain cases. 5. A remarkable case of acute inflammation of the neck of the bladder, in a woman, with retention of urine, at once removed by the forcible elevation of the hips of the patient. Other cases reported. 6. The avoidance of varicose veins of the legs in shop-keeping men and women by sleeping on a double inclined plane; and the importance of those predisposed to apoplexy, sleeping with the head well elevated. 7. The effect of the position of the body in phthisis, in liver and other congestions. A case of an infant with suffocating catarrh at once relieved by the elevation of the head and chest. 8. A beautiful illustration found especially in the herbivorous or grazing animal of nature's plan of counteracting the hurtful gravitation of blood to the brain. 9. A lesson suggested from these considerations and facts to those unwise doctors and deluded people, who think "a man cannot die till his time comes." That mechanical law in the body is as inflexible as the same law in the machine, and loss and ultimate destruction will come as certainly from neglect of these laws, to the one as to the other.

DR. A. C. PALMER, of Norfolk, Va., prepared a paper on

OUTLINE TESTS FOR MUSCULAR INSUFFICIENCIES OF THE EYE, WITH REPORT OF A CASE.

Leaving out of consideration cases of strabismus, etc., he confined attention to the more minute forms of insufficiencies, known by the term *heterophoria*. In strabismus one eye soon accustoms itself to see the object looked at, while the other is idle as to effort at vision; but in heterophoria there is acute normal vision, in which every detail of an object is seen, but the external rectus of one or both eyes is just too weak to prevent the internus rectus muscle from turning the ball in, just past the normal axis. Eyes such as these have to swing a very little way to make the image seen with one eye a little to one side of that seen with the other, and the confusion resulting is all the worse from the very fact that each eye sees so clearly that neither image can be ignored. The patient has before him two similar images which are continually receding from and blending with one another; but he will involuntarily overcome this blurring of outlines if he can possibly spur up the externus muscle to pull the eye out to its proper place. Just these insufficiencies or strains produce more mischief than true strabismus. Heterophoria is subdivided into esophoria (eyes tend to turn in too far), exophoria (tend to turn out too far), and hyperphoria (where one eye swings on a higher level than its fellow). Prisms deflect an image towards their apices or their edges. The relative strength of each of the four recti muscles, in their normal conditions, are first presumed to be ascertained. Thus the externi should diverge the eyes sufficiently to make the image single when prisms of 8° are placed before them with their bases in. The interni, after a little trying, should converge sufficiently to single images when prisms of 50° are placed before them, bases out. If a patient with neurasthenia presents, place him in an erect position and direct his vision on a lighted candle, 20 feet off; then cover each eye alternately and notice whether the light moves up or down, or to the right or left. This paralax test, introduced by Dr. Alexander Duane, of New York City, often establishes at once the form of insufficiency; but should it not do so, then use the prism tests, which the paper describes in detail. Dr. Palmer then explained the application of glasses to overcome each of the insufficiencies.

DR. D. MAYER, of Charleston, W. Va., read a paper on the

USE AND ABUSE OF OBSTETRIC FORCEPS.

He showed that when the forceps are properly used they are not damaging; that harm may come when used too late; that the time has arrived in obstetric advances when the practitioner will be compelled to use them, because intelligent women demand their application to shorten their period of suffering.

DR. L. B. ANDERSON, of Norfolk, Va., presented the *Report on Hygiene and Public Health*, in which he classed the etiological factors into

(1) those which are known, (2) those which are purely hypothetical and chimerical, such as malaria, vegetable parasites, bacteria, etc., (3) those that are partly demonstrable and partly hypothetical, namely ptomaines and leucomaines, from which sanitary laws are deduced.

Dr. J. G. Wiltshire, of Baltimore, Md., read a paper on *Anæsthetics*, but retained his manuscript for some revisions.

DOMESTIC CORRESPONDENCE.

LETTER FROM NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Annual Meeting of the New York State Medical Association— The President's Address on Tubal Pregnancy—Laying the Corner Stone of the New Building for the Academy of Medicine.

The sixth annual meeting of the New York State Medical Association, which was held at the Hotel Brunswick, during the last week of September, was, like all its predecessors, successful and interesting. The well arranged programme previously published was in the main faithfully carried out, and, as in former years, the chief features of interest were the set discussions on topics of scientific and practical value. This year there were three of these discussions, the first being on "Tubal Pregnancy," and opened by the President of the Association, Dr. Wm. T. Lusk; the second on "The Treatment of Hernia," and opened by Dr. Joseph D. Bryant; and the third on "The New Hypnotics: sulfonal, amyl hydrate, hydrobromate of hyoscin, hypnone, paraldehyde and urethran," and opened by Dr. Wm. H. Flint.

Among the most noteworthy separate papers were the Address in Medicine, on "The Bacteriological Test of Drinking-water," by Dr. Edward K. Dunham, which was a contribution of the highest scientific merit, and a paper by Dr. H. D. Didama, of Syracuse, entitled "A Few Fads," which was extremely full of the wit and dry humor so characteristic of its accomplished and genial author. A case of exceptional interest was also presented by Dr. Lewis Hall Sayre; this being one in which, for the first time on record, a patient has been enabled to wear an artificial limb after amputation at the hip-joint. The operation was performed (by Dr. Reginald Sayre) for bone disease (mollities ossium), in such a way that flaps were left with a sufficient amount of the muscles of the thigh to secure a certain amount of "grip" for the artificial leg; and there can be little doubt that the case inaugurates a new era in hip-joint amputations.

In the limits of this correspondence it is manifestly impossible to give even a satisfactory outline of the work accomplished at the three days' session of the Association, and the remaining space at disposal for this subject will therefore be devoted to a brief consideration of the able and brilliant address of the President on "Tubal Pregnancy;" which, however, can afford but a very inadequate idea of its exhaustive character.

Dr. Lusk first reported two cases of tubal pregnancy of his own in which laparotomy was performed after rupture. In the first complete recovery followed and since the operation the patient has enjoyed better health than at any time previous in her life. In the second case the patient was affected with Bright's disease, and died from this cause on the eighth day after the operation. These two cases, he said, illustrated the ordinary history of tubal pregnancy. In both, without antecedent symptoms at an early period of gestation rupture with hæmorrhage took place; in the one instance the blood primarily making its way between the folds of the broad ligament, in the other passing suddenly, without check, directly into the peritoneal cavity. They were simply additions to the long list already furnished by Mr. Lawson Tait, upon which he had based his scheme of ectopic gestation. In Mr. Tait's belief all cases of extra-uterine pregnancy were *ab initio* of tubal origin. He denied the possibility of a primary abdominal pregnancy; while the ovarian form he regarded as possible, but not proven.

There was no question, Dr. Lusk said, as to the utility of Mr. Tait's scheme. It was based upon his exceptional personal experience and had received substantial support from the observations of others. It had stimulated active inquiry and given proper direction to pathological study; but the subject was still too new to make it possible for any scheme to be regarded as a finality. The most interesting outcome of Mr. Tait's work had been the change of view as regards the existence of primary abdominal pregnancy, and there was at present a very general agreement that the reported cases are at least open to grave suspicion.

In regard to the etiology of tubal pregnancy, Mr. Tait was unquestionably right in insisting upon the importance of the various forms of salpingitis. Owing to the associated loss of epithelium, the dilatation and other changes in the tube walls, the two active forces which propel the ovum through the tube, viz.: the ciliated movements and peristalsis, were weakened or destroyed, while free ingress was afforded to the spermatozoa. Or, again, the passage of the ovum might be interfered with by the secondary results of catarrhal inflammation, such as the production of mucous polypi, of adhesions, or of sac-like dilatations. Formerly great stress was laid upon the etiological importance of flexions and constrictions resulting from old peritoneal adhesions and inflammatory bands; but, curiously enough, in recent laparotomies for tubal rupture this cause had not played an important part. Recent observations

had also shown that there is a tendency of tubal pregnancy to recur.

The burning question at this moment connected with tubal pregnancy was that of early diagnosis. Dr. H. J. Hanks had recently stated his belief that a diagnosis can be made in 95 per cent. of the cases we are called upon to attend. Mr. Tait, on the other hand, thought "he might be excused for maintaining a somewhat skeptical attitude concerning the correctness of diagnosis of those gentlemen who speak of making a certain diagnosis before the period of rupture." In the main, Dr. Lusk said, our dependence must be upon local symptoms and local changes. The former consisted of the suspension of the menses, often followed, after a brief period, by bloody discharge, of paroxysmal pains, and of the discharge of the decidua. But the latter was by no means of constant occurrence, while paroxysmal pains were frequent in other forms of tubal disease, and menstrual disturbances were common phenomena in uterine derangements. As a matter of fact, the occasion for diagnosis must be very exceptional in the large class in which rupture occurs primarily within the peritoneal cavity. In the intraligamentous form the case was somewhat different. Here the swelling to the side of the uterus was easily reached through the vagina, and he believed in such cases that the chances of error were slight. He did not understand Mr. Tait to deny the possibilities of a diagnosis under such conditions. He differed only in regarding all intraligamentous cases as secondary to tubal rupture. Not much dependence was to be placed upon uterine changes in the early months; but after the third month it was not ordinarily difficult to determine the existence of the pregnant state. The distinction of physical signs between the tubal, the ovarian and the secondary abdominal form was scarcely practicable so long as trained anatomists failed to agree concerning them when the abdomen has been opened and the organs exposed to view.

A review of the subject of diagnosis made it apparent that many cases of ectopic gestation present no symptoms previous to rupture. In another class the existence of a suspicious tumor with few or none of the corroborative signs should lead to a waiting policy, or, when the symptoms were of a threatening character, to an explorative laparotomy. Upon the fact that in favorable cases certainty of diagnosis is attainable in the early stages of ectopic pregnancy rested the entire argument as to the validity of the treatment by means of electricity. The only argument against this treatment, except that the results reported carried with them the evidences of ignorance and folly, was that it is likely to cause rupture and that the retained ovum is liable to excite suppuration. But these eventualities were so rare that they might be left in case of need to a subsequent laparotomy. It should be understood that this means of treatment was only available in the first three months, and that no one in this country, as was commonly assumed by foreign critics, advocates electro-puncture.

The argument in favor of the early use of galvanism did not in the slightest degree impair the value of laparotomy, which must always remain our most important therapeutical resource. Laparotomy not only possessed the advantage of being the one measure for the treatment of cases where, as in rupture, death is the common alternative, but it enriched our resources in cases of impending danger. Unlike the employment of galvanism, it presupposed the equipment necessary for laparotomy and the skill that comes from experience. It possessed this advantage: it leaves nothing to chance. All the possibilities are under the control of human intelligence; and, except for the question of ethics, it was available both before and after rupture. The late results with this procedure left little reason to doubt that when the anatomical conditions come to be properly realized human invention will find means to control the dangers of the so-called primary operation for extra-uterine pregnancy, and it too will find its place in the domain of legitimate surgery.

The corner-stone of the new building of the New York Academy of Medicine was laid in the presence of a large assemblage of physicians and distinguished men of other professions by the President of the Academy, Dr. Alfred L. Loomis, on the afternoon of October 2. On this occasion the invocation was by Bishop Potter and the principal address by Dr. A. Jacobi, ex-President of the Academy. The feature of chief interest, however, was an address by ex-President Grover Cleveland, who followed Dr. Jacobi, and this was delivered with that clearness, dignity and grace so characteristic of his public speeches. In the course of it he said: "To the members of this organization the corner-stone which we now lay is an honor, for it is a monument which marks an important advance in the attainment of the purpose of the Academy as declared in its constitution, 'the promotion of the science and art of medicine.' In these extensive foundations is also found proof of the progressive ideas of these earnest men and their constantly enlarging estimate of what is necessary to meet the purposes to which their energy is directed. . . . . I am sure that you are not inclined to ignore the aid you have received in the project you have undertaken from the laymen among your Fellows. Nor can you forget that underlying all that you have done and all that you have received are our free American institutions, which encourage and give scope to every worthy effort and which offer fitting rewards for intelligent and well-directed labor in every condition of life. I hope that when we shall celebrate here the discovery of our country we

may point out on this spot, in your completed building, a splendid monument of the progress of our medical education, a monument which shall not only prove to the stranger that our physicians are proud of their profession, but one which shall also be a reminder that those who govern within its walls to not forget in their devotion to the science and art of medicine the other duties of citizenship."

It did not perhaps occur to the illustrious speaker how much more is done for the fostering of scientific investigation by some of the "effete monarchies of Europe" than by the great and glorious Government resulting from our free American institutions. P. B. P.

The Rush Monument Fund.

The attention of the secretaries of county medical societies throughout the United States is called to the resolution adopted at the meeting of the American Medical Association at Newport, "that one member of each county medical society in the Union be appointed to solicit funds for the *Rush Monument*," and they are requested, at the next meeting of their several societies, to ask that such a member be designated for this purpose, and to send his name and address either to the undersigned, or to Medical Director Albert L. Gihon, U. S. N., Chairman of the Rush Monument Committee, U. S. Naval Hospital, Brooklyn, N. Y.

All subscriptions, however, should be remitted directly to the Treasurer of the Rush Monument Committee, Dr. DeWitt C. Patterson, 919 T street, N.W., Washington, D. C.

WILLIAM B. ATKINSON,
Permanent Secretary A. M. A.
1400 Pine street, Philadelphia, Pa.

Unusual Length of Funis.

To the Editor:—I wish to report a case which, although by no means unique, is, nevertheless, not without interest. I recently attended a young woman, 22 years of age, in her first confinement. She was of slight figure and weighed less than 100 pounds. The child (which was found to weigh 9½ pounds) was born in a condition of *asphyxia livida*, a condition produced by reason of a coiling of the funis around the neck. There were *five* of these coils, drawn very tight, notwithstanding which circumstance there was an abundance of slack left. The child was resuscitated without much difficulty, and in half an hour the placenta was delivered by Crede's method. The latter was of unusual size, being far larger than any other placenta I ever saw, although, as usual in such cases, it was by no means proportionately thick. When expelled it was rolled up like a scroll. Following the third stage of labor there was a very considerable flow of blood, although the uterus contracted fairly well. This, however, soon stopped after the removal of a large quantity of clots from the vagina and cervical canal. There was a very apparent relation between the area of the placental insertion and the amount of blood lost. The cord measured 48 inches in length and was not especially attenuated. This length, although very unusual, has no doubt often been surpassed. Schneider recorded a funis 120 inches in length which made six turns around the child's neck; Bandelocque reported an instance in which a cord of 59 inches had seven coils; Mme. Waldwogel mentions a case in which there were eight coils.

Yours truly,
JUNIUS C. HOAG, M.D.

Chicago, October 9, 1889.

BOOK REVIEWS.

CATALOGUE OF SHARP & SMITH, IMPORTERS, MANUFACTURERS, WHOLESALE AND RETAIL DEALERS IN SURGICAL INSTRUMENTS AND DEFORMITY APPARATUS. Chicago, 1889; pp. 973.

This is a voluminous and excellent catalogue. It is very complete and well illustrated. Its arrangement is convenient. It is to be commended among trade publications.

THE PHYSICIAN'S LEISURE LIBRARY, SERIES IV. SYPHILIS OF THE NERVOUS SYSTEM, by H. C. WOOD, M.D., LL.D.; pp. 135. 1889. Detroit: George S. Davis.

The medical public is always glad to hear from one of its most honored exponents in this country, Dr. H. C. Wood, and if, therefore, an interest be awakened by the announcement of a new brochure bearing the above title, we can assure our readers that they will find no cause for disappointment in a perusal of the particular volume in question. There are few physicians who are in a position to speak more authoritatively upon this subject than Dr. Wood, who has reached the conclusions herein set forth from a study of 2,000 cases of nervous disorders associated with syphilis. Among the many points of interest made by the author is this one: That there is a syphilitic insanity which exists without obvious meningeal disease, and is capable of being cured by antisyphilitic treatment, in support of which view a table of illustrative cases is given with regard to the method of antisyphilitic treatment by the hypodermic injection of the insoluble salts of mercury, a method which has been greatly praised by some European physicians. The

author finds that the dangers of local inflammation are so great as to overbalance any special advantage which might thereby be gained. His first experience in its use resulted so unfortunately as to discourage its further employment.

MISCELLANY.

THE MCLEAN COUNTY (ILL.) MEDICAL SOCIETY met in the regular session at the office of Dr. C. J. Corley, October 7, at 3 P.M. There were present Drs. H. Parkhurst, M. Wilson, Wm. Hill, N. P. Jordan, F. J. Parkhurst, C. J. Corley, S. T. Anderson, C. C. Sater, A. L. Chapman, F. C. Vandervoort and M. D. Hull. Dr. C. E. Ballard, of Saybrook, was elected to membership. Dr. Wm. Hill was elected to fill the vacancy on the Board of Censors. Dr. F. J. Parkhurst's essay on "Electricity as a Therapeutical Agency" was very interesting, his explanation of the different kinds of instruments used showed him to be a man well versed in scientific principles. A vote of thanks was tendered the doctor for the excellence of his paper. Dr. D. A. White's essay on "Scarlatina" was attentively listened to by all present. Drs. M. D. Hull and William Hill were appointed essayists for the December meeting. The Society adjourned to meet the first Monday in November.

LETTERS RECEIVED.

Dr. H. Bart Ellis, Los Angeles, Cal., Dr. C. W. Irion, Rocky Mount, La.; The Subscription News Co., Chicago; Dr. F. E. McKim, Marietta, O.; Dr. Wm. Pepper, Philadelphia; Dr. C. N. Boyd, Butler, Pa.; Dr. G. H. Grant, Richmond, Ind.; Syracuse College of Medicine, Syracuse, N. Y.; Fairchild Bros. & Foster, New York; Dr. C. S. Pixley, Elkhart, Ind.; Publishers' Commercial Union, Chicago; David Grove, Berlin, Germany; Dr. A. L. Hummel, Philadelphia; Dr. B. Corbeau, Civet, France; Dr. A. P. Brown, Fort Worth, Tex.; Dr. G. H. Eiskamp, Washington; Dr. James L. Taylor, Wheelersburg, O.; Dr. T. Delafield, New York; Dr. Chas. W. Dulles, Philadelphia; The American and Continental Sanitas Co., New York; Dr. John O. Roe, Rochester, N. Y.; O. V. Dubia, Chicago; Dr. J. H. Bryan, Washington; John N. Paton, Chicago; The Postmaster, Minneapolis, Minn.; Dr. Eugene Grissom, Raleigh, N. C.; George Tiemann & Co., New York; Lea Bros. & Co., Philadelphia; D. Appleton & Co., New York; Keystone Watch Co., Philadelphia; J. H. Bates, New York; Dr. James Tyson, Philadelphia; Dr. J. A. Boracky, Alma Centre, Wis.; Medical and Surgical Sanitarium, Battle Creek, Mich.; Dr. G. S. Hall, Worcester, Mass.; Dr. D. C. Stillians, Chicago; Horlick Food Co., Racine, Wis.; Dr. Wm. Creighton Woodward, Philadelphia; Popular Science News Co., Boston; Dr. F. E. Waxham, Chicago; Dr. M. A. Bogie, Kansas City, Mo.; J. H. Chambers & Co., St. Louis, Mo.; Dr. R. J. Dunglison, Philadelphia; Dr. Freudenthal, I. Haldenstein, New York; Dr. Henry O. Marcy, Boston; Dr. S. C. Newlin, New Salem, Ind.; Dr. Llewellyn Eliot, Washington; Ensworth Medical College, St. Joseph, Mo.; Mellier Drug Co., St. Louis, Mo.; J. B. Lippincott & Co., Philadelphia; Parke, Davis & Co., Detroit, Mich.; Dr. D. DuPré, Dallas, Tex.; Dr. C. F. Disen, Minneapolis, Minn.; Dr. Wm. Brodie, Detroit, Mich.; The Postmaster, Mortimer, Kan.; John Wanamaker, Philadelphia; Dr. H. R. Storer, Newport, R. I.; College of Physicians and Surgeons, Baltimore, Md.; Charles H. Phillips Chemical Co., New York; Dr. E. E. Montgomery, Philadelphia; Dr. M. Stamm, Fremont, O.; Dr. J. W. Gleitsmann, New York; Dr. M. P. Hatfield, Dr. Jno. A. Robison, Chicago; The Parmenter Printing Co., Lima, O.; Rush Medical College, Chicago; Dr. Joseph Hoffman, Philadelphia.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from October 5, 1889, to October 11, 1889.

Lieut.-Col. A. K. Smth, Surgeon U. S. Army, leave of absence extended twenty-one days on surgeon's certificate of disability. Par. 7, S. O. 234, A. G. O., October 8, 1889.

Capt. Edward C. Carter, Asst. Surgeon U. S. Army, granted leave of absence for twenty days. Par. 6, S. O. 234, A. G. O., October 8, 1889.

Capt. Benjamin Munday, Asst. Surgeon U. S. Army, granted four months' leave of absence. Par. 2, S. O. 233, A. G. O., October 7, 1889.

Asst. Surgeon William P. Kendall, U. S. Army, granted leave of absence for one month. S. O. 93, Dept. of the Platte, October 2, 1889.

Surgeon Wm. S. Tremaine, U. S. Army, relieved from temporary duty at Ft. Leavenworth, Kan., and will return to his home (Buffalo, N. Y.). Par. 13, S. O. 230, A. G. O., October 3, 1889.

Surgeon Benjamin F. Pope, U. S. Army, relieved from duty at Ft. Clark, Texas, and will report for duty to commanding officer, Whipple Bks., Ariz. Ter. Par. 11, S. O. 230, A. G. O., October 3, 1889.

Surgeon John S. Billings, U. S. Army, detailed as delegate to represent the Medical Department of the Army at the annual meeting of the American Public Health Association to be held at Brooklyn, N. Y., October 22, 1889. Par. 10, S. O. 230, A. G. O., October 3, 1889.

Official List of Changes in the Medical Corps of the U. S. Navy for the Week Ending October 12, 1889.

Surgeon G. A. Bright, detached from temporary duty at the Naval Academy and placed on waiting orders.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine-Hospital Service, for the Six Weeks Ending October 5, 1889.

Surgeon C. S. D. Fessenden, granted leave of absence for thirty days. October 3, 1889.

Surgeon Walter Wyman, granted leave of absence for thirty days. September 3 and 21, 1889.

Surgeon H. W. Sawtelle, granted leave of absence for seven days. September 26, 1889.

Surgeon H. W. Austin, granted leave of absence for thirty days. September 9, 1889.

Surgeon J. M. Gassaway, when relieved at New Orleans, La., to rejoin station at Cairo, Ill. September 30, 1889.

Surgeon C. B. Goldsborough, leave of absence extended thirty days on surgeon's certificate of disability. September 16, 1889.

P. A. Surgeon S. T. Armstrong, relieved from duty at New York; ordered to command of Service at Cleveland, O. September 17, 1889.

P. A. Surgeon R. P. M. Ames, assigned to duty at New Orleans, La., upon expiration of leave of absence. September 30, 1889.

P. A. Surgeon J. H. White, leave of absence extended thirty days on surgeon's certificate of disability. September 21, 1889.

Asst. Surgeon Seaton Norman, granted leave of absence for thirty days, to take effect when relieved. October 4, 1889.

Asst. Surgeon W. J. Pettus, ordered to Portland, Me., for temporary duty. September 26, 1889. Granted leave of absence for twenty-six days, to take effect when relieved. October 3, 1889.

Asst. Surgeon J. J. Kinyoun, granted leave of absence for thirty days. September 21, 1889.